



C E Bolton

Mayor of East Cleveland, Ohio, 1899 - 1901

A MODEL VILLAGE OF HOMES
AND
OTHER PAPERS

A M O D E L
V I L L A G E
O F H O M E S
A N D O T H E R P A P E R S

By
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TO MY GRANDCHILDREN
Stanwood Knowles Bolton
AND
Geoffrey Bolton

PREFACE.

I AM prompted to send out in book form these several papers, some of which have appeared in the press, with the hope that they may be helpful to others.

My wish for the volume is expressed in the words of another, "I expect to pass this way but once ; if, therefore, there be any kindness I can show, or any good thing I can do to my fellow human beings, let me do it now, let me not defer or neglect it, for I shall not pass this way again."

Could I have choice of my last word I would place Helpfulness upon the archway of the sky in golden letters large enough to reach from the rising to the setting sun.

CONTENTS.

	PAGE
A MODEL VILLAGE OF HOMES	11
AN ENGLISH HALF-HOLIDAY	35
STAGE-COACHING IN ENGLAND	47
COFFEE-HOUSES IN GREAT BRITAIN	57
THE SUNDAY-SCHOOL CENTENARY, LONDON	69
THE SUNDAY SCHOOL CENTENARY, LONDON, <i>Con-</i>	
<i>cluded</i>	91
A FÊTE OF THE FRENCH REPUBLIC	111
A VISIT TO THE WORLD'S COLUMBIAN EXPOSITION, CHICAGO	129
A VISIT TO THE WORLD'S COLUMBIAN EXPOSITION, CHICAGO, <i>Concluded</i>	175
THE GREAT LAKES AND THE MEDITERRANEAN	201
SPANISH RULE, AND ITS END, IN CUBA	221
A COLLEGE VACATION AT THE FRONT	245
HOW FINE PAPERS ARE MANUFACTURED.	255
ENTERTAINMENTS FOR THE PEOPLE	267
THE FLAGS OF ALL NATIONS	289

A MODEL VILLAGE OF HOMES

A MODEL VILLAGE OF HOMES.¹

CLEVELAND, Ohio's metropolis, celebrated in 1896 her centenary, with arches, processions, speeches, and great gifts for public parks.

Her first pioneers were Gen. Moses Cleaveland and his party of surveyors from Connecticut. These men blazed the way for others, who slowly moved westward, on foot and in ox-carts.

Where a century ago stood tall forest trees that shaded the tepees of the brave Chippewas and Ottawas, to-day, in the shadows of graceful spires and modern sky-scrapers, live not less than 400,000 people. The rapidly growing outlying districts have been absorbed till the city's lake front extends a dozen miles. This shore front and the valley of the Cuyahoga River abound in docks piled high with red-dish ores, and everywhere are seen the low, dingy iron and steel mills, that belch forth fire and smoke both day and night.

From the public square, near the mouth of the river, radiate the principal avenues and boulevards,

¹ Rewritten from an article which appeared originally in the *American Monthly Review of Reviews*, November, 1899.

and these streets are shaded with elms and maples that give the popular name "Forest City." The large suburban population that has escaped eastward by electric cars has been organized into three sister villages, — East Cleveland, Glenville, and Collinwood. Westward is the hamlet of Lakewood, and here, at "Glenmere," on a shale precipice of the lake, in full sight of the great inland marine highway from the upper lakes to the lower, lives Senator Marcus A. Hanna, the astute and virile political manager for President William McKinley.

Heretofore Cleveland has won her increased territory by mutual agreement. Recently, however, the vigorous cry for a "Greater Cleveland" planned a forced union with several suburbs, and this was met with stout resistance. The villages would neither be disfranchised, nor assume any portion of the city's great debt; they did not believe in taxation without representation; they preferred to decide what should be done with all their own money. Twice in the city council-chambers the villages crossed swords with city officials, and twice the latter were defeated by the adverse decision of Cuyahoga County's ten members of the Ohio Legislature. The independence of the villages was asserted and finally won.

As an effective implement of future defence against the encroachments of the city, and other corporations, the Village Mayors' League, embracing

the eight villages of Cuyahoga County, has been organized. Politics is tabooed, and village interests only are sought. Already uniform State laws, just taxation, equitable franchises, water-works, street, sanitary, light, and other improvements have been discussed. The League's motto is that of the Swiss Confederacy: "One for all and all for one."

Much of late is being said in periodicals and press about needed reforms in American cities, but often the writers are unmindful of the well-known fact that the country is mother of the city and, to a great extent, is arbiter of the city's character and destiny. The natural order of organized development among American citizens appears to be as follows: The tiller of the soil, the merchant at the cross-roads, the hamlet, the town or village, and finally the city.

The impatient American beyond the Mississippi has often sought to reverse this law by first building the city and afterward developing the country, but he has met with indifferent success. Most cities are as dependent upon a developed tributary country as the continental rivers are dependent upon their tributary streams. Rich soil makes possible productive farms, thrifty hamlets, growing villages, flourishing schools and churches, all of which are important factors in the proper growth and development of greater municipalities. The overwork, close confinement, late hours, and temptations of city life are

forces that enervate the body and undermine the character. The cities' recuperative power largely comes from a constant influx of strong and brave young people from the country.

It has been said that the surest way of reforming the child is to begin with the grandparents. The stream never rises higher than its source. Reform the people that reinforce and build up the cities, and the cities themselves will soon respond to the uplift.

In the near future the glory of Cleveland will be her splendid park system. Soon smoothly graded boulevards and parkways, grassy lawns, verdant foliage, flowers and shrubs, lakes and rippling brooks will in wide and graceful sweep encircle rich and poor from Lake Erie on the east to Lake Erie on the west. In the past, however, Cleveland's fame abroad has rested largely upon her unrivalled Euclid Avenue, which extends from the public square eastward for many miles, Euclid Road continuing on to Erie, Pa. The first two miles of the avenue are ninety-nine feet wide. It is curbed and paved with Medina stone. Four rows of arching elms shade the well-kept road lawns, while on a ridge at respectful distance stand vine-clad palatial residences, built of light or red sandstone, in the midst of abundant shade and extensive lawns. Here in the summer season those who prefer fresh lake breezes live on their lawns and wide porches. A passing bicyclist, or owner of

an aristocratic automobile, will perhaps recognize Hon. John Hay, Secretary of State, or the distinguished scientist, Mr. Charles F. Brush, who lives in a French chateau, or he may bow in passing to his former mate in the high school, Mr. John D. Rockefeller, whose annual dividends alone rival the entire fortune of Cræsus. On this famous avenue dwell many millionaires whose fortunes have come from successful ventures in ores, oil, coal, lumber, railways, and in other occupations.

This same avenue, eighty feet in width, extends farther east for three miles, through old East Cleveland, or the "East End," now annexed. Branching off to the north and south for eight miles are many streets, cooled by lake breezes. Here are the large and fine bedchambers of the overworked city. Beyond, one comes to the new East Cleveland, a village of six years' growth and 3,000 population. This outer village owes its existence to modern rapid transit, the wonderful electric railroad. The taut-wire walker excites wonder, but the hundreds of horse power that travel on overhead copper wires distance miracles of old, and gladden the hearts of modern suburbanites. Gail Hamilton once said that a ride in a horse-car for five cents evidenced the approach of the millennium; with electricity substituted for horses, how much truer the statement. For a pittance, the live wire sends the poor man

and his family out into the fresh country air. The middle class easily combine a city and country home, and are early at office and prompt at tea. The new East Cleveland is a second extension of two and three-fifths miles of Euclid Avenue. Formerly it was called Collamer, in honour of Hon. Jacob Collamer, of Vermont, who was a justice of the Supreme Court of that State, also representative, senator, and postmaster-general under President Taylor.

East Cleveland is a village terraced down to the sea, or lake. These terraces or ridges, four in number, and more or less well defined, extend along the southern shore of Lake Erie. They are each thirty or more feet in height, and were formed in the far-off Ice Age, possibly twelve thousand years ago, when the St. Lawrence and Mohawk Valleys were gorged with glacier ice that, blanket-like, a mile in thickness, covered the North American continent. The so-called Great Lakes of to-day are small pools in comparison with the ancient inland sea which covered several of our largest Western States.

These four terraces that rise one above the other are the old perpendicular shale shore lines, which have been rounded or softened by the storm-washed silt. Lake Erie's waters to-day beat against the lower shale terrace; back two miles is a second shore line, or gravel ridge, along which is located Euclid Avenue; then farther south and higher are

the other two terraces. Nature has done much for the new East Cleveland. From the higher terraces, you look out upon one of the most attractive views in Northern Ohio. At your feet, along the terraces, is rapidly building our youngest suburban village. On its right is the sandstone tower of the picturesque and pioneer First Presbyterian Church, the oldest religious organization in Northern Ohio. It dates back to 1807. In the old Shaw Academy, surrounded by maples, is the village high school. Two new eight-room school buildings in the east and west portions of the village, with graceful towers, are half hidden in foliage. Beyond the church tower is quiet Collinwood, occupied in part by the Lake Shore Railway employees. Along the terraces, even to the shore line, are hundreds of farms surrounded by odd bits of forest and struggling groups of fruit and shade trees, while extensive and well-kept vineyards of purple Concords and Catawbas stretch far to the east.

Nearer the lake rises the brick town hall of peaceful Glenville. Here and there are rows of tall Lombardy poplars, that remind one of districts in Northern Italy. A graceful curve in the wooded shore line, when enlivened with sail, brings to mind the Bay of Naples. In the landscape, the eye detects a windmill, a red barn, or the national emblem, and beyond all, and touching the blue sky, are the sparkling

darker blue waters of Lake Erie. This splendid lake view is suggestive of the picturesque coasts of Southern New England. At times, when a storm threatens, the outlook becomes bolder, and you are reminded of the noble Hudson. Long white steamers, on their thousand-mile journey to Duluth, pass in review, and great ore and coal carriers blacken the horizon with dense smoke. At the close of day, the sun sinks leisurely beneath the silver waves. Later, when the great city below is arc-lighted, its stars rival the stars overhead. Mrs. Sarah K. Bolton, who lives in East Cleveland, writes of these terraces as follows :

“ Tree-covered hills, crossed by a deep ravine ;
Yonder a lake of blue,
Shaded to crimson hue
When rays of sunset bridge the vale between.

“ Then stars come out, led by the crescent moon ;
Afar the city sleeps ;
All night the cricket keeps
Its constant monotone, a plaintive croon.

“ Then morning breaks on the horizon line ;
The hilltops are aglow ;
The vineyards purple grow ;
The dewdrops like a million diamonds shine.

“ Then all day long the clouds their pictures trace
On broad and varied sky ;
The weeks slip noiseless by ;
Ah, life is sweet with nature face to face.”

Mr. John D. Rockefeller's summer home is at "Forest Hill," East Cleveland. Here, on the upper terrace, he owns six hundred acres of forest ravines, woodland, and lawns, which are threaded with many miles of carriage drives and bicycle paths. "Forest Hill" commands a view of city, country, and lake. Here the multi-millionaire loses and finds himself during June, July, August, and September, and extends a rare hospitality to those whom he invites.

Mr. Rockefeller, past fifty years, is tall, slightly bent forward, and gracious in manner. His "hill neighbours" receive a courtesy marked with much thoughtfulness. He is an expert golf player, pitcher of quoits, and bicyclist, delighting on dark nights to outdo his visitors in a successful journey through the narrow paths of an extensive and wooded labyrinth. This very busy man has learned how to sandwich proper exercise in with business. Few men enjoy more a good story, or the telling of it. In a single year he has had planted sixteen thousand trees at "Forest Hill." He is very fond of his big beeches and oaks, and is the guardian of all the little trees that lift their branches around the mother trees. His many employees are well paid, and say kind words only.

On Sundays and Friday evenings he goes regularly, with a big wagon-load of people, to the Euclid

Avenue Baptist Church, and each summer he officiates as Sunday-school superintendent.

Mr. Rockefeller organized the famous Standard Oil Company, which is matchless in the perfection of its organization, of which he, as president, is the controlling spirit.

While East Cleveland might boast of having on its terraced hills the richest citizen of the world, yet it prefers to be called a model village. The village has no politics, no saloons, no policemen, no crime, and no poverty. For almost a century a good class of citizens, mostly of New England origin, dwelt upon the township and hamlet lands, living on the products of the soil. The school furnished a good education for their children, and the big white church gave of its morals. The hamlet trustees met weekly in an old harness shop, talked, and adjourned. The hamlet's entire assets consisted of one oak table, one lamp, and a dozen chairs. The sandy and muddy streets, though shaded by large trees, were ungraded and unlighted, sidewalks unflagged, and the people lived without a public library, lake water, gas, or a sanitary sewage system. Of course land had but little value, sales were rarely made, or new buildings started. Few attractions for residents were offered.

The people were prompted to change the hamlet to a village, and at length a charter was obtained for a single-track railroad. A few city people inquired

the price of land, and the village was suddenly changed back to a hamlet, which practically prohibits improvements. The city folks came just the same, bought land, and soon a vote was taken on changing again to a village charter, but the newcomers were badly beaten. An enlightened vote, however, is always a power for improvement. So there were purchased and sent to the hamlet voters over two hundred pamphlets on "Village Improvements," by the Hon. B. G. Northrop, of Connecticut. Then came the spring election of 1895, and the Citizens' Ticket, which advocated improvements, won by sixty-seven majority. It has since controlled the village affairs, with the following results:

FIRST. Euclid Avenue has been widened from sixty feet to eighty-six feet, and graded for two and three-fifths miles. A road-bed fifty feet in width has been drained, and paved with large vitrified, or hard-burnt brick, size $8\frac{1}{2} \times 5 \times 3\frac{1}{2}$ inches, at a cost of about \$200,000. Five dollars, payable in five equal annual instalments, was assessed on each front foot, and the last of the special assessments will be paid before the close of 1901. The thirteen-foot strips taken off both sides of the avenue were paid for in cash, the value, about \$30,000, being fixed and satisfactorily apportioned by a special commission, the chairman of which was Judge Patrick Henry Smythe. It is quite remarkable that deeds to this five mile

strip, taken off from improved front yards, were obtained from nearly two hundred owners without a single court proceeding. Fairness, cash, and diplomacy did it.

A dozen miles of sawed stone sidewalks, five and six feet in width, have been laid along Euclid Avenue and the fifty or more side streets. All water, sewer, and gas pipes are placed in the road lawns.

Many new streets are being opened, and seventeen side streets are being equipped with up-to-date improvements. Beautiful homes are rapidly being built throughout the village. The houses number about one thousand, and the last census shows an increase in population of 175 per cent. in the last six years.

SECOND. The Cleveland Electric Railway made a twenty-five-year contract with the village, in brief as follows: The company to furnish double tracks of heavy steel rail through the village and to pave fifteen feet of the road-bed; to give rapid transit — about thirty-five minutes to the public square, and morning and evening cars every three minutes; the citizens to pay at the rate of eleven tickets for fifty cents, provided that such fare, either in cash or by tickets, shall not at any time exceed that charged on the Euclid Avenue line of said company within the city of Cleveland, with transfer privileges. In a word, a single fare costs about four and one-half cents, and

takes a passenger from old Collamer to the public square, a distance of eight miles, or several miles farther by using a transfer.

THIRD. The village, by contract with Cleveland, uses Lake Erie water, which is delivered through many miles of six, eight, ten, and twelve-inch iron pipes. A water-pipe connects the village pumping-station with a steel water tank located on the ridge. Its capacity is 282,000 gallons.

One hundred and sixty-six hydrants are distributed throughout the village, which with three hose companies afford ample fire protection. The annual expenses for the necessary fire steamers would be not less than \$10,000. The village, therefore, has the cheapest possible effective fire service.

The total cost of the water-works has been about \$113,000. Lake Erie water is metered by the city of Cleveland, to the village of East Cleveland, and this water is again metered to the village consumers.

It is a humane act for the village to furnish water free for man and beast at the red trough with brass faucet and cup, in front of the village hall. It is estimated that here annually not less than twenty-five thousand persons and fifty thousand horses and dogs quench their thirst.

FOURTH. The proper disposal of sewage and garbage is one of the most complex and difficult problems which confront cities and towns. Sitting

Bull, late chief of the Sioux tribe of Indians, refused to occupy the pretty homes built by the government for his people on the Missouri River, preferring to live in tents, and change often the location. A sanitary remedy excellent in itself, but somewhat troublesome.

Crude sewage treated promptly becomes harmless. Uncared for sewage soon becomes alive with millions of bacteria, often the deadliest foe, introducing into homes diphtheria, scarlet and typhoid fevers, cholera, and other contagious diseases. Sometimes cities and villages are depopulated, and these localities become more dangerous than battle-fields.

The sanitary engineer seeks to destroy the disease-producing bacteria, or germs, in a community. He discovered that nature destroyed all organic wastes in only one way, viz. : by oxidation, combination with oxygen, either energetically, as when garbage is cremated in a furnace, or as applied indirectly to sewage or liquid wastes, by bacterial action.

Briefly we name five of the well-known methods of scientific sewage disposal :

1. Broad Irrigation. This requires a large and porous area of land, and, properly handled, gives excellent results.

2. Intermittent Filtration reduces the land area by replacing the soil with coke breeze, fine gravel, etc. Thus oxidation is quickened.

3. Chemical Precipitation is often combined with Intermittent Filtration. By the addition of lime, or other reagents, the organic matter in suspension (forty per cent. of sewage) is made suitable for handling.

4. The Septic Tank combined with Filtration. In a tank, light-tight, solids in sewage settle, or rise as scum, putrefaction is caused by aerobic bacteria, sewage tissues break down, and the solution yields quickly in aerated beds.

5. Positive Aeration, air being forced by fans throughout porous beds. This intensifying method Colonel Waring patented, and the efficiency is increased twenty-fold.

East Cleveland adopted the Waring method of sewage purification. Ten acres of land, costing \$12,000, were purchased. Underneath the fifteen miles of cemented sewage pipes are laid as many more miles of uncemented pipes to convey away seepage water. A sanitary sewage-disposal works was built, and the requisite boilers, engines, sewer-pumps, and air-fans are all in duplicate. All sewage moves rapidly to the plant, and there passes into a deep brick well, twenty feet in diameter. Thence it is pumped into big strainers and aerated slag beds, and after about five hours the sewage, changed into pure water, is on its way back to the lake. Frequent tests by a village expert chemist prove that the effluent is purer than Lake Erie water. Two hundred and sixty-

two manholes or openings into the sewers have been built. The whole sewer system is flushed daily. Village bath-tubs with three-inch outlets would be very helpful. The outlay for the entire plant will approximate \$150,000, and the capacity will care for five thousand people.

Rigid attention to scavenging is quite as important as attention to water, sewage, drainage, and fires. Kitchen wastes, the refuse of merchants, such as condemned vegetables, fruits, eggs, etc., by decomposition breed flies, and scatter disease in the air we breathe, the water we drink, the food we eat, and even in the soil we live upon. How shall the village dispose of this great danger?

The correct answer is by cremation, for fire is the ideal destroyer. The garbage furnace is in operation in Cleveland, and in scores of other cities. Each householder should keep two separate receptacles. In one should be placed kitchen refuse and combustible waste to be taken to the crematory; the other to be used for ashes and incombustible refuse, which can be utilized profitably as filler for low land, or on roads, or it can be sent to the village dump. Ashes, paper, glass, and tin cans are not garbage. Old paper can be sold by the children for their pin money. Glass, tin cans, etc., should be buried, and not thrown on your neighbour's vacant lot.

In East Cleveland the death rate is very low, about

5 per 1,000. By a scientific treatment of sewage and drainage contagious diseases have been practically prohibited. It is also remarkable that of the sixteen deaths reported in thirteen months, three were in early childhood, and nine persons died whose average age was seventy-eight years.

The village has a high school, and two new eight-room school buildings, the cost of the latter being about \$50,000. The total number of boys and girls enrolled is over eight hundred, and twenty-four teachers are employed. The annual expenses for education are about \$15,000.

Everybody in the village is within the sound of church-going bells, and the six church organizations have a vigorous growth.

FIFTH. In 1792 gas was first practically used. "A light without a wick" is impossible, declared a member of the British Parliament. When electricity, "an imitation of moonlight," came to be used, optimists relegated gas to the background. But by aid of the clever inventions of Prof. Robert W. Bunsen, and Dr. Carl Auer von Welsbach, gas for lighting purposes may eventually outstrip electricity.

In lighting a village or city, efficiency and economy are the chief essentials. Public convenience and personal safety require a nice adjustment of the lights and police; lights are cheaper than watchmen. Light encourages good living, and policemen need to be

more vigilant when the sun goes down, as criminals prefer darkness.

Thirty arc lamps, changing night into day, hang above the car tracks the length of the village. The price for 1900 per lamp was \$87.60. Incandescent light is being introduced into churches, blocks, and homes.

Gas is furnished the village under a twenty-five-year contract or franchise. The price is 75 cents per 1,000 cubic feet.

Number of gas meters in the village, about 500.

Sales of gas to the village consumers last year, 15,207,700 cubic feet.

For the year ending Dec. 29, 1900, 6 per cent. on the gross receipts as per franchise covered by checks into the village treasury, \$765.90.

Prof. Richard T. Ely gathered the statistics of ninety-five cities with private owned plants, and he found the average cost of a so-called "2,000 candle power" arc lamp (250 to 600) to be \$105.13 per light per year. The same service in seventeen cities, with public owned plants, cost per light only \$52.12, or less than one-half of the price of private plants.

SIXTH. It was Sir William Thompson who said that "the telephone is the marvel of marvels." Most bright schoolboys know that the principle of the telephone is a reproduction of sounds by means of two vibrating discs.

Hundreds of miles of copper wire are strung on poles and in conduits throughout the village. All poles should be erected on the rear of lots. The public demand is for a maximum of advantages from the telephone with a minimum of prices, damages, and inconveniences. Scientists assure us that a recent coil invention makes ocean telephony possible, and that it will extend rapid communication to land lines of any length.

The village has two post-offices, and an efficient mail delivery service.

The plan of planting trees in East Cleveland is to set one row of trees midway between the sidewalk and the curb, and a second row inside the inner sidewalk line. This plan gives four rows of shade trees on each street. It is suggested that the elm alternate with the maple, or horse-chestnut.

Lake View Cemetery is located part in Cleveland and part in East Cleveland, and comprises 301 acres of high terraced land, cut by beautiful ravines.

The burial here of General James A. Garfield, the twentieth President of the United States, and his stately monument, have given Lake View Cemetery a national reputation.

On knoll, bank, and terrace, under ornamental shade and beneath fragrant shrubs, lie thousands of citizens of the lake metropolis. Half hidden among the trees are seen mausoleums, tall granite shafts,

and artistic monuments. The tallest granite obelisk, costing \$20,000, is upon the family lot of Mr. John D. Rockefeller.

One of Cleveland's finest works of art is the Wade Memorial, or Mortuary Chapel and Receiving Vault, costing \$150,000, and erected by Mr. J. H. Wade.

For the present the council of East Cleveland meets in the old Union School brick building, which is made cheerful by pictures and incandescent lights. Two-thirds of the hall is reserved for citizens, and at one end, on a raised floor, or platform, stands a long oak table, and the seven oak chairs are occupied every Monday evening by the mayor and the six members of the village council; near by sit the solicitor, engineer, and marshal.

The council proceedings are governed by State laws, village ordinances, and rules. During the year ending April 15, 1901, forty-five meetings have been held, few if any speeches have been made, and politics and personalities have been practically tabooed. The records for the last six years fill one thousand pages, and show nearly two hundred ordinances passed.

Every village should have a civic club house centrally located, in which should be provided suitable halls for municipal meetings, lectures, concerts, and rooms for a library, and for various society and club meetings; in fact, proper accommodations for every-

body and everything that will give an uplift to a community.

A tax is a disagreeable and often an unjust burden. Equality in taxation, a thing most desirable, is also a complex and difficult problem.

In the State of Ohio the valuations of all real estate are liable to changes every decade. The Massachusetts plan of an annual valuation is more just.

Total decennial estimate of realty and personal in East Cleveland for 1901	\$3,000,000
The actual value is about	6,000,000

A tax-rate of .02 in the village will produce more of revenue than in the past.

The census of 1900 makes Cleveland the metropolis, and Cuyahoga the banner county of Ohio. All cities and suburban villages, in their government, should become models for smaller municipalities. Citizens in municipalities, if property-holders, are not unlike stockholders in a banking trust, and should demand capable and honest management. A municipality, like a business or banking firm, has business to be done, and this can and should be well done. Intelligence, integrity, and energy can accomplish much. When municipal business is done poorly and dishonestly, the best class of citizens, and not the worst class, is largely responsible. Collectively, a city is rich, and to expect much well done

with poor material, and for small pay, is surely to invite dishonesty and cheap results. The city has no more right than an individual to ask or expect something for nothing. Persons of honour are daily pained at what the press of the country says of municipal incompetency and dishonesty. Better a thousand times that the collective wealth and interests of large cities, like that of railroads and great trusts, should be cared for by skilful and well-paid managers. Of course, it would be safer to add a half-dozen advisers. This is about what the laws of Ohio do for our villages. A mayor and six members of the council are elected on the general ticket; they act with little or no compensation, for village duties are not burdensome, and, generally speaking, the results are excellent. The same general plan, with good salaries for the entire time of capable office-holders, would secure more efficiency and honesty in the grown-up villages, or cities of America.

AN ENGLISH HALF-HOLIDAY

AN ENGLISH HALF - HOLIDAY.

AFTER a substantial lunch at the Conservative Club with its genial secretary and the treasurer of Birmingham, who, besides receiving and disbursing \$25,000,000 annually, finds time to keep pace with advanced science, four of us started for a ramble in the suburbs. Throughout Great Britain most employees earn their Saturday half-holiday by beginning labour at six o'clock in the morning, and the needed recreation is also shared by the employers. Wages are paid on Friday. These two important changes in behalf of the work-class were first introduced by Mr. Richard Tangye.

Fifteen minutes' ride by railway brings us to Tangye Brothers' "Cornwall Works," at Soho, where Boulton and Watt first built steam-engines. The story is told of a Yankee who, as his train left Soho, caught sight of "Cornwall Works," painted in six-foot letters, on a brick building, and he at once concluded that such enterprise was worthy of a closer inspection. The acquaintance resulted in the keen observer receiving since as royalties in a single year, from Tangye Brothers, forty thousand dollars.

The works cover eleven acres, and furnish employment to fourteen hundred men. Twenty-five or more years ago, five brothers came from a small Cornish farm to Birmingham, then the "Toy Shop of the World," as Burke called it, and began the manufacture of jack-screws in a little room, paying a weekly rent of one dollar.

The celebrated engineer, Mr. I. K. Brunel, having accidentally seen the Tangye invention, and being unable to launch the *Great Eastern* into the Thames, applied to this energetic firm for assistance, who, with their hydraulic rams, successfully launched the mighty ship, weighing thirteen thousand tons. Since this great feat, the Tangye Brothers say, "We launched the *Great Eastern*, and the *Great Eastern* launched us," forcibly illustrating the saying, "Nothing succeeds like success." The name of Tangye (Celtic, meaning a place in a sheltered situation) has become known far and wide, above and below ground. Miners wanted their small engines, unequalled in simplicity and compactness, and their improved pumps. The Tangyes were quick to utilize the power of fluids to transmit pressure in every direction, and constructed ingenious hydraulic machines, some to press the juice from sugar-cane, and oil from linseed and cocoa, and others for punching and shearing thick metal plates.

The wonderful principle that a pound pressure on

any square inch of liquid in a vessel exerts a pressure upon the whole vessel equal in pounds to the square inches of its interior surface, enabled practical men like the Tangye Brothers to multiply power to any extent. A machine supplied by them to the Russian government had the capacity of one thousand tons. The Obelisk in Rome was raised in 1586 by Fontana, who employed forty capstans, worked by 960 men and seventy-five horses. In 1836 Le Bas used half that number to elevate the Luxor Obelisk at Paris. Cleopatra's Needle was placed upon its new pedestal on the Thames embankment by four men only, who worked four of Tangye's hydraulic jacks. The differential pulley-block of Weston, an American, was perfected by this firm, and after a suit costing \$50,000, they have sold thousands of sets, which demonstrated their energy.

Three of the brothers have retired on their wealth, while Richard and George carry on the vast and constantly increasing business. Both are teetotallers, and in full harmony in their earnest endeavours to give comfort to employees. The dining-room of their works seats one thousand persons, and is supplied with a hundred gas-stoves and other extensive appointments that enable their help to cook meat, boil eggs, coffee, etc. Twenty-minute lectures on a variety of subjects are delivered twice a week during the dinner-hour. The Bible, mathematics, machine-

drawing, etc., are taught. A physician is exclusively retained, and the dispensary, well-selected library, and piano, illustrate how capital may appreciate labour. Light, warm dinners or luncheons are furnished managers and clerks in most works and business houses in Europe, and the wise ones in America are fast adopting the plan.

We saw, in the scattered departments, which are controlled by telegraph, great piles of engines and other finished machines ready for the India, Colonial, and other markets.

No wonder that the Tangye Brothers have succeeded Boulton and Watt, and it is fitting that George should occupy "Heathfield," the old James Watt estate. A broad road, shaded by venerable beeches and elms, leads to an unassuming mansion, two stories in height, with wings flanking a large porch. As you enter, a beautiful marble bust of Watt stands in the hall. The drawing-room looks out upon the lawn. In an adjoining room hangs a fine painting of the great inventor. But our interest centred in James Watt's "garret," or workshop. Watt, who died in 1819, specially requested in his will that the garret should not be opened, nor the estate even leased. After nearly half a century, a descendant ventured to turn the rusty bolt of this historical room. Our party reverently crossed the threshold, on one side of which the floor was white

with scouring, on the other lay the dust of sixty years, and we stood in a room, perhaps twelve feet by twenty, with low, arched roof, and lighted by two small windows looking out upon shrubbery. A rude foot-lathe stands at the end of a bench, over both of which are scattered drills, files, hammer, wrench, dividers, foot-rule, etc., as the master worker left them. Boxes of busts and medallions had been brought into this quiet garret to be copied by the sculpture-machine which Watt was perfecting. Its great utility is seen to day in the manufacturing by the same principle of gun-stocks, axe-helves, shoe-lasts, and spokes. The frame of this ingenious machine has been totally ruined by the borings of little beetles, sometimes called the "death-watch." We curiously peeped into drawers neatly labelled, containing mathematical instruments, scales and weights, quadrant glasses, taps, dies, etc. Pots and jars held chemicals and minerals. On the floor lay models of the parallel motion, and the "governor," which, when the engine is supplied with steam, always seems to us to be endowed with intelligence. The ashes of the last fire were in the grate. A withered bunch of grapes lay on a plate thick with dust. The aged father had placed, with his own hands, Gregory's trunk full of school-books near the work-bench, so that his eye might rest upon all that was left of an only son, who gave every promise of

a brilliant career, till death claimed the prize. Young Gregory's friends at college were Campbell the poet, Brougham, Humphrey Davy, and Telford, the famous bridge builder. One of our party put on Watt's old leathern apron, and as he bent over the lathe with Watt's clay pipe in his mouth, it was easy to imagine ourselves in the presence of one of the world's greatest benefactors. Gladly would we have emptied our pockets for some souvenir of our privileged visit, but the rusty bolt was again turned upon the room that is to remain as quiet as the tomb where repose the remains of the immortal engineer.

Watt, Matthew Boulton, and William Murdock are buried in Handsworth Church, not far away, which admiring friends recently restored at an expense of \$60,000. Many hexagonal, round, and clustered columns, beneath graceful arches, support a roof of wood highly ornamented. The Gothic windows are set with exquisitely stained glass. On the left of the altar is a mural bas-relief in marble of Murdock, who first utilized gas for illuminating purposes. Opposite is one of Boulton, of whom Doctor Johnson said, "He was the best mannered man I ever knew." He was noble in appearance, resolute, upright, generous, fond of children, and sanguine in the midst of suits and financial embarrassments. Once enlisted in developing Watt's inventions, he mortgaged his lands to the last farthing, and bor-

rowed of banks and friends, till he had invested over \$200,000. Watt, harassed by "Cornish pirates," ill health, and loss of an only daughter and son, was often on the brink of despair, and longed to die.

Boulton, on the verge of insolvency himself, wrote his friend to keep up cheer, and that the way to get pleasantly through life was not to regard the rubs. Watt could manage machines, and Boulton men. Watt spoke of his partner as "the princely Boulton." Finally their claims being established, and engines made thoroughly practical, great success followed. Boulton said to Boswell, who visited Soho in 1776, "You see here, sir, what all the world desire to have, power.' The happy combination of two such unique persons gave force and dignity to national character, and advanced mightily the arts and manufactures of all countries.

In Handsworth Church, to the left of the altar, you step beneath an arch into the "Watt Chapel," where stands a superb statue in white marble of Watt, sitting, and of life size. Chantry, one of England's foremost sculptors, rising from the humble calling of a milk-boy at Sheffield, where a kind patron discovered him carving images in the road-side clay, also cut another beautiful statue of Watt, which is honoured with a place in Westminster Abbey, and Lord Brougham furnished for it one

of the finest mural inscriptions in the English language.

Leaving the church, we passed scores of charming houses, and came to the cultivated home of our English friend, where we walked in the pretty garden, saw long rows of delicate forget-me-nots, and enjoyed a conservatory full of choice flowers and ferns. Two sons had just returned from school on bicycles, riding 140 miles in two days. One brought two fine prizes, which were won with his bicycle. This ideal machine, developed from the clumsy velocipede, with its rubber tire, steel wire spokes, signal bell, and lantern, surpasses the speed of a race-horse, on the smooth roads of England.

After tea, we went to see a neighbour's collection of the celebrated Wedgewood ware, said to be the finest in England, not excepting Gladstone's. A beautiful hall in a large house was elegantly fitted up with cabinets for this costly pottery, which a century ago interested all Europe. Each piece was a gem. Vases, medallions, plaques, cups, and tazzas, the colouring in jasper, dark and light, sage-green and black, were surmounted in white by figures in cameo of nymphs, satyrs, cupids, flowers, fruits, festoons, and vines. Such works of art, costing hundreds of dollars each, must be seen and studied to be fully appreciated. This artistic ware is found amidst the most splendid specimens of Sevres

and Dresden porcelain in cabinets private and national.

Josiah Wedgewood was the youngest of thirteen children, and sat at the potter's wheel till the amputation of a leg drove him to use his mind. He read the best authors, that he might fully understand the chemistry of pottery, and so improve the composition of clay, glaze, and colouring. He astonished connoisseurs by originating in two years six different kinds of pottery. Jaspers, agates, and variegated stones were clearly imitated. Queen Charlotte, wife of George III., ordered a set of his cream-coloured stone ware, and appointed him her potter; hence the celebrated "Queen's Ware." He sold fifty copies of the Portland Vase for \$262 each. He employed the best of artists copying at Rome and Paris. Flaxman even prepared models. He imitated in facsimile nearly two thousand cameos taken from Egyptian, Grecian, and Roman mythology and history. In all his work he excelled in sharpness of outline, and never would countenance poor quality. He made a remarkable dinner service for Empress Catherine II. for her palace near St. Petersburg. It consisted of as many pieces as there are days in the year, and covered tables in five rooms; three years being occupied in its production. Twelve hundred views of the country houses and gardens of England were painted upon the service, and a green

frog upon each piece. The ground of the ware was pale lemon, and the border purple.

Wedgewood became a Fellow of the Society of Antiquities, and of the Royal Society, and was a contemporary of Watt, Boulton, Murdock, Doctor Priestly, the discoverer of oxygen and eight other gases, and Doctor Darwin, all of whom belonged to the famous "Lunar Society," that met at Boulton's hospitable mansion. The name "Lunar" was adopted because the meetings were held in the full of the moon, so that its members could see to drive home. The discussions of these earnest investigators must have been rare treats.

I took leave of my English friends with hearty thanks, sincerely wishing that more Americans would take Saturday half-holidays, and hurried to my rooms past Handsworth Church, as the bell in the old Norman Tower, built in the thirteenth century, rang, at eight o'clock, the curfew, striking at the close the day of the month; a custom established by William the Conqueror, signifying that the fires were to be raked up and the lights put out. Henceforth we shall better understand the first lines of Gray's unsurpassed Elegy, "The Curfew Tolls the Knell of Parting Day."

STAGE-COACHING IN ENGLAND

STAGE-COACHING IN ENGLAND.

CAMBRIDGE TO OXFORD, 112 MILES, IN TWELVE
HOURS.

IN merry England the upper classes certainly know how to have pleasure. During the winter months, the twenty thousand members of the three hundred clubs hunt not less than four days a week. Within a few years the old custom of coaching, which steam had forced to the rear, has been brought forward as one of the most delightful summer amusements. One of the charming sights of London, in May, is the turn-out of fifty or more elaborate drags of the "Four-in-Hand" and "Coaching Clubs." Royalty, nobility, and gentry furnish the membership. In addition, a score of stage-coaches, owned and driven by gentlemen, make daily excursions into the beautiful and historic suburbs of the city.

Foremost of these is the "Defiance Coach," which runs tri-weekly between the great universities via London. Capt. Carleton V. Blythe is sole proprietor, and, having travelled widely in America, in his tour around the world, he knows how generously to anticipate the wants of those in search of genuine recrea-

tion. Fifty thousand dollars is invested in swift roadsters, one to the mile, and in Holland's famous coaches, models of style.

While waiting at Cambridge for the time of departure, our two hours' walk led us through the majestic quadrangles of Trinity and St. John's Colleges, across the graceful bridges that span the classic Cam, under the grateful shade of long rows of stately elms and fragrant limes, and back into King's Chapel, built three centuries ago by the Henrys. Its fourteen immense windows of exquisitely painted glass fill the eye with beauty. "Portions of Bible history are written in the hues of the rainbow by the earnest hand of faith." The pillars and slender shafts, all tending upward, appear to lose themselves in the bossed network of ribs and fan tracery which strengthen and define the lofty, vaulted roof of stone. Standing in silence, the heart is elevated in prayer to God, and fresh inspiration, the evident idea of the builder, is ours.

The "Defiance" had accommodations for twelve passengers outside and four inside, besides seats for the driver and guard. We booked for the last seat, a sovereign each, it being Hobson's choice. The passengers included fellows of the colleges, and tourists from America and London. The box seat beside the driver was given to a stylish lady. The guard, wearing a scarlet coat with gilt trimmings,

blew a long brass horn, and as the clock struck nine, Captain Blythe gathered the reins well in hand, and we were off. Hundreds gathered at Bull's Hotel, bidding us good-bye, and down King's Parade we went, rapidly passing St. Peter's, Pembroke, and Corpus Christi Colleges, and upon leaving the famed city, the spirited horses broke into a gallop, developing a speed that was rare enjoyment for those who believe in fast driving.

The first six miles to Harston were made in just thirty-five minutes, where our heated team was quickly changed for four fresh bays, and we pushed on toward London. The roads were heavy from frequent rains, but without ruts, for the Romans, centuries ago, taught the Englishmen how to keep them smooth the year round. Hard limestone, broken small, is kept at convenient distances, and every indication of wear is immediately repaired. Excitement quickened acquaintance, and the passengers talked and joked on innumerable subjects. As an American we naturally sympathised with the tenant farmer, whose first five dollars per acre and more of his scanty income must go to the non-producing landowner. His buildings, with thatched roofs, and children, poorly clad, spoke plainly of pinching poverty. The rainfall since March first, five months, had been nearly twenty inches. His meadows were flooded, and fields of unripe wheat, barley, and oats,

were everywhere badly lodged. Haying, sixty days behind America, was not half finished. An Englishman said, "All went right while Providence managed the weather, but since the Americans have taken it in hand, they have sent us only beastly storms." So enormous are the importations of produce and meats from America, —and they are constantly increasing,—that the English farmer need not expect any great future profit from agriculture. Free trade, to be consistent, must also advocate free land; otherwise entailment may wreck the English Empire.

In less than three hours, we rode twenty-eight miles; through Royston, where King James I. had a hunting-lodge, out of Cambridgeshire into Hertford County, and on to Wade's Mill, where we gladly halted for a ten-minute lunch. Americans, accustomed to leave on their office door, "Gone to dinner, return in five minutes," did ample justice to hot mutton-joint, etc., much to the surprise of Englishmen, who require a full hour.

Passing Ware and Edmonton, we are reminded of the ludicrous ride of Cowper's John Gilpin from London on his wedding-day. At Waltham, we came to one of several crosses which Edward I. erected to commemorate the worth of his beautiful queen, Eleanor. She died in 1290 at Harley, and a cross was built wherever the sad procession stopped *en*

route to Westminster Abbey. The seventh stage or relay brought us to Tottenham High Cross, and four beautiful grays carried us ten miles south, through the suburbs into London. Pretty villas and cottages lined the roads, their unique architecture giving exquisite effect, as ivy, Virginia creeper or roses partially or entirely cover walls, roofs, and chimneys. We began to feel the throb of the mighty metropolis as the mellow notes of the horn cleared the crowded streets while we hurried through Camden town, Portland Place, and Regent Street. As "Big Ben" in the Parliament Tower struck three, we turned into Piccadilly, and pulled up at Hatchett's famous White Horse Hotel with half our journey made.

After a twenty-minute lunch and several changes in our passenger list, four sleek black horses took us westward past the Marble Arch and along Hyde Park and Kensington Gardens, over the Bayswater Road, and out of Middlesex County into Buckinghamshire.

Surely no country in the world affords so many lovely landscape views. The grass of the British Isles is always fresh and green, the lawns having a peculiar velvety softness. The foliage of elm, ash, beech, oak, lime, and sycamore, scattered everywhere most artistically, is rich in quantity and colour. The evergreen hawthorn and holly, white with blossom in springtime, and red with berries in the fall, enclose

luxuriant crops and pasturage. The pastures abound in groups of pretty sheep, some with black faces and feet, others with long, curly fleeces; also choicest breeds of cattle, the white and red shading into each other in every conceivable variety. We no longer wonder at Rosa Bonheur's intense love for domestic animals.

Ivy and moss cover the homes of rich and poor alike, and characteristic spires and antique towers spring constantly into view, making the ride in any direction extremely picturesque. The barley fields were all aglow with the scarlet poppy intermixed. The daisies which Wordsworth loved, and an occasional Scottish bluebell beautified the roadside. Approaching Gerrard Cross, we drove through fields brightened with the tiny purple heather.

• Before the twilight ended, which in summer continues in England till after nine o'clock, we had passed on our left the immense estates of the Duke of Somerset, Lord Carrington, and Lady Dashwood. On our left lay the country-seat of Lord Beaconsfield.

Men, women, and children in nearly thirty villages had now cheered on the "Defiance," and driving into Tetsworth, the people sang out, "You are late, captain!" "Yes, I know it," he replied. "Hurry up the horses and lanterns. We have yet twelve miles to make in sixty minutes." Already fifty-six horses had done their work. In less than three minutes the

fresh animals were on the gallop. The brakes were put on, but down grade they ran, their steel corked shoes striking fire, while the sparks flashed from the friction on the wheels. Six miles were scored in twenty-five minutes. The last four of the sixty-four horses were at their task. The darkness of a starlight night requiring frequent blasts of the horn to keep the road clear, made the race into Oxford most exciting. This was the 129th trip of the season, and the "Defiance" had not yet been a minute late. The ambitious horses were now crowded to their utmost. Passengers clung to their seats and hats, and held their breath, while the horn announced our coming. High Street reached, we fairly flew past All Souls' and Queen's Colleges. Ahead, the streets were crowded with a thousand anxious citizens. As the clock, in full sight on the old tower of St. Mary's Church, struck nine, we came to a stop in front of the Mitre Hotel, and the enthusiastic crowd gave hearty cheers for the success of English coaching.

Captain Blythe was ably assisted in driving by a special coachman, Edwin Fownes, and the genial guard, Henry Cracknell, both experienced in coaching, and their fathers as well. The "Defiance coach" makes over fifteen thousand miles for the season.

General Putnam's ride may have been more

dangerous, Horace Greeley's down the Sierra Nevadas around more sharp curves, Lady Godiva's more embarrassing, but no ride could be more enjoyable than ours from Cambridge to Oxford.

COFFEE - HOUSES IN GREAT BRITAIN

COFFEE - HOUSES IN GREAT BRITAIN.

LORD BACON, in the year 1621, writes about coffee as "the drink that comforteth brain and head, and helpeth digestion." Thirty years later, both coffee and tea made their appearance in Great Britain, the first coffee-house in London being opened by a retired Turkish merchant. His drink was described as "The Turk's Physic of Cophie" and a "Syrrop of Soot, or Essence of Old Shooes;" the latter phrase certainly not inappropriate to much of the stuff furnished at many hotels and restaurants nowadays. Prior to 1715, the year when green tea was introduced into Great Britain, not less than two thousand coffee-houses were registered in London alone. A writer in the *National Review* states that every profession, trade, class, and party had its favourite coffee-house. The Whigs and Tories gathered in St. James Street, and the leading wits in Great Russell Street. Six cents covered the charges for lights, newspapers, and a cup of tea or coffee. Smoking was also allowed. Regular customers claimed their seats and special attention from barmaids, selected then as now for their pretty faces.

As patrons increased, the right was purchased to exclude all except subscribers. Thus occurred an easy and rapid transition from coffee-houses to clubs. With the eighteenth century died the old-fashioned coffee-houses of Dryden's, Johnson's, and Goldsmith's times, clubs, public houses, and restaurants taking their places. Now London has more than 250 club-houses, one-half being patronised exclusively by the upper and middle classes, the other half by workingmen. The clubs of the latter were among the earliest organizations intended to promote the social, mental, and moral welfare, and recreation of the working classes. Over eight hundred exist in Great Britain, the main features of which are educational, provident, and recreative.

London also has ten thousand drink-shops. A late census shows 186,000 persons engaged in selling intoxicating liquors, or one to every thirty-five houses. The saloons of Great Britain, put end to end, with thirty-six feet average frontage, would form a street 750 miles long, stretching from Land's End, in Cornwall, to the extreme north of Scotland, and almost from Liverpool to London. This vast machinery has increased the apprehensions for drunkenness sixty per cent. during the last seven years. One person in eleven is compelled by drink to be a pauper, or beg assistance in a nation that boasts of one-fourth of the world's commerce.

Earl Cairns, Lord Chancellor, in formally opening a coffee-house at Stratham, said: "Not less than \$700,000,000 was spent by the English nation last year for intoxicants, an increase in twenty-two years of \$200,000,000. The enormous amount is double the total average cost of army, navy, judiciary, education, civil service, and interest on \$2,800,000,000, the recent national debt."

Hon. Wm. E. Gladstone said: "Intemperance in Great Britain is not only a public evil, but, beyond doubt, a national reproach." In a speech made at the opening of a coffee-house, he said: "If they are to be extensively useful, they must be extensively multiplied."

The "Reformed Coffee-house Movement," embracing cafés, British workmen public houses, coffee taverns, cocoa and chocolate houses, has been started as a counter-attraction to the drink-shops. Dukes and earls, archbishops and bishops, professional men and politicians, business men and capital, have all combined to give impetus to this new moral force.

In 1847, the Gatts Brothers opened, in London, cafés, or coffee-houses, which have been conducted much on the plan of those long established in Paris, Berlin, Brussels, Hamburg, and other Continental cities. Some years ago, the People's Café Company, with a capital of \$50,000, was formed under the presidency of the noble Earl of Shaftesbury, to place the

Continental café system before the London public. In their four large cafés, the words, "No intoxicants sold here," are conspicuous on windows and walls, and cleanliness and despatch prevail. The employees receive, in addition to their salaries, twenty-five per cent. of the entire receipts, after deductions for depreciation. A hundred or more cafés now exist in London, in most of which no intoxicants are sold.

In 1853, a few intelligent workingmen of Dundee, believing that liquor was not necessary for human existence, influenced Lord Kinnaird to start a workingman's coffee-house, that they might find a convenient place to spend a pleasant evening with comrades, and purchase a meal cheaply. Five others were started out of the profits, leaving a reserve of \$13,000. The annual gross receipts are \$30,000. The price of coffee, tea, soups, and meats varies from two to eight cents each. Two-cent tickets, good in any of the houses, are scattered by thousands among the needy.

In Leeds was started the first "British Workman Public House," in the fall of 1867, Mrs. R. S. Hind Smith being the founder. It is a public house with all its sociability, lights, fires, papers, and cheap refreshments, without drink. Scripture texts are on the walls, and up-stairs meetings give moral tone. The words "Come, and Welcome," and the following, are displayed on front of the building :

" A public house without the drink,
Where men can sit, talk, read, and think,
Then safely home return;
A stepping-stone this house you'll find,
Consent to leave your beer behind,
And truer pleasures learn."

Hon. W. E. Forster, M. P., who believes that intemperance is the besetting sin of the nation, has greatly encouraged the movement in Bradford. He says: "Strive by individual effort to get men to use self-control, and practise self-denial. Law cannot furnish these." A Coffee Tavern Company has established a Central House, costing \$35,000, called the "handsomest coffee public tavern in the kingdom," with eight branches.

The late Duke of Westminster fitted up at his own expense an extremely picturesque coffee tavern in the historic town of Chester, and others have since been added. The duke in his speech said that "a cup of tea or coffee warmed far better than a glass of gin, and freshened one much more." He urged the opening of the taverns at five o'clock in the morning. He also read an earnest letter from Florence Nightingale, the soldier's friend, in which she said, "God speed the movement."

The Archbishop of York, who has done so much in the Church of England to turn the tide of intemperance, presided last December at the opening of a

beautiful coffee tavern in Rotherham. One of the grandest temperance meetings I ever attended was held by the Church of England Temperance Society at Birmingham. Fifty temperance sermons were preached in that city and suburbs in the Established Church.

The Earl of Derby is also much engaged in this enterprise, and says: "This time we have got hold of the right end of the stick. Make every coffee-house self-supporting, and not a charitable institution." Nowhere in the United Kingdom has the coffee-house been a greater success than in Liverpool, the recognized stronghold of the drink-shop. At the close of the Moody and Sankey meetings in February, 1875, a conference was held to discuss the question, How to reach the masses? It was reported that along the docks alone over twenty thousand men were employed. Leading merchants have practically answered the question raised by organizing the "British Workman Public House Company," with a capital of \$100,000, since doubled. Forty or more houses, called "cocoa-houses," have been started; several along the extensive docks. All are opened at five o'clock in the morning, and closed at eleven P. M. Special attention is given to location, character of manager, quality of food and liquids, and all the appointments are made very attractive; brass polished twice a day, counters promptly cleared of dirty

dishes, clean sawdust scattered on floors, clock kept accurate, and latest railroad time-tables at hand. The company thoroughly enforce these five C's: Civility, Cheerfulness, Comfort, Cleanliness, and Cheapness. All employees must be total abstainers. The directors found themselves in the line of success, when they discovered that they could make profit by selling a good cup of coffee and cocoa for one cent each, and a cup of tea for two. Temperance and social meetings are held in the halls above. Thousands sign the pledge books, which are kept open in every house. Coffee carts carry hot drinks among men who change localities. The total weekly sales average seventeen thousand gallons, ten thousand of which are coffee, four thousand cocoa, and three thousand tea. Besides four hundred gallons of pea soup are sold at two cents per bowl. The weekly receipts are \$5,000, and the dividends for several years have been ten per cent. annually.

Similar companies exist in Manchester, Bristol, — where they have a "cocoa boat," — Birmingham, and in many other towns, which pay from five to ten per cent. on large capital. In London an organization has been formed recently to erect kiosks for the sale of coffee, cocoa, etc., on the public parks. At present nearly a hundred companies exist in Great Britain, which have opened three thousand coffee-houses.

For twenty or more years many cheap dining-halls

have had marked success in Glasgow, which are patronized by thousands of persons daily. They are conducted not unlike Bailey's in Philadelphia. Necessarily the hundreds of waiter girls, tidily dressed, have a civilizing influence upon the uncouth men, who come to get a hot dinner, which costs from eight to ten cents. A sensible feature of the halls is the rule of presenting each employee, when married, a family Bible. Thus hundreds of Bibles have been distributed.

A \$1,000 prize has been awarded to Rev. W. Cunningham of Cambridge University for the best essay, among 122 competitors, on places of resort adequate to the wants of the working man.

The coffee-houses of Great Britain have grown constantly in number and patronage. The *Temperance Caterer* of London, February 15, 1900, says: "The record is one of almost unbroken success. The great provincial companies, Liverpool, Birmingham, Manchester, etc., have nobly maintained their prestige, and have given further and conclusive evidence that the movement, in spite of the confident predictions of enemies and the gloomy prognostications of pessimistic friends, has come to stay."

Mr. W. H. Newett, general secretary of the Manchester Y. M. C. A., sends me the following interesting letter, dated February 24, 1900: "When I was acting as honorary secretary of the Moody

Mission, in Liverpool, in 1874 (being at the time chairman of the Liverpool Y. M. C. A.), at the close of the Mission, an all-day conference connected therewith was held in the great Victoria Hall (a wooden building specially erected for the Mission, holding twelve thousand people), and Mr. Moody asked for a number of testimonies and suggestions. Among other speakers was the Rev. Charles Garrett, the celebrated Wesleyan minister, still living, who said that, along the line of docks in Liverpool, when the wives brought the dinners of the dock labourers, these men had to take their food into the public houses to eat, and therefore at the same time got drink. Mr. Garrett's suggestion was that, as a counter attraction to that temptation, coffee taverns and cocoa-houses should be planted along the line of docks. Mr. Moody was so pleased with the idea that, although speakers had been limited to ten minutes, he gave Mr. Garrett twenty minutes extra in which to explain his suggestion. Then Mr. Moody asked Mr. Alexander Balfour and others to find £50,000 on the spot (you remember his way of doing such things), but the money was not then forthcoming, as men like Alexander Balfour and Sam Smith, and others, wished to first meet together to work out the details. Within six months this was accomplished, a company started, and three houses opened. There are now forty-nine such houses

in Liverpool, and they have always paid ten per cent.

"Since then they have spread all over the country, and have been further followed by beautifully furnished, attractive-looking cafés, such as, in London, the A. B. C., Lyons & Co., the Aerated Bread Co., Pearce & Plenty Co., and many others. As a rule, everything in these places is well served, and they generally have smoke-rooms, so that over the whole country they have become enormous competitors of the 'pubs.' Following upon these, and owing to the large and increasing number of cyclists, male and female, we have now, in the suburbs of towns and on country roads, tea and coffee refreshment rooms, which prevent the necessity for cyclists going into country public houses for refreshments."

THE SUNDAY-SCHOOL CENTENARY,
LONDON

THE SUNDAY-SCHOOL CENTENARY, LONDON.

ON Saturday afternoon, June 26, 1880, Sunday-school delegates from fourteen nations were most cordially received by Sir Thomas Chambers, M. P., president of the Union, in the fine building of the Sunday-school Union, 56 Old Bailey, London. The rooms were decorated with flowers, mottoes, and national colours, the chaste stars and stripes contrasting strongly with the flag of the British Empire. Sir Charles Reed, M. P., whose visit to America many remember, presided at a formal meeting in the lecture-hall. His welcome was most hearty. He said, there were two sides to the Old Bailey. The one was marked by the gloomy portals of London's most ancient prison, and the other renowned as the headquarters of the most hopeful religious educational agency of the century, the Sunday school. They were met, not to glorify a man whose name is dear to us, but to glorify God, who raised up Robert Raikes to originate so wonderful a work. He stood amazed in 1784, and said, "It is like a grain of mustard seed;" we, beholding its marvellous growth, say,

"What hath God wrought?" The United Kingdom and colonies have a half-million teachers, and four and a half million scholars. Mr. Higgs, of Gloucester, came to convey a message of welcome from the home of Robert Raikes, insignificant at one time, but now historical; also to invite delegates to visit the very house in Catharine Street where the first Sunday school was held. He could show us four persons who were once children in Raikes's school.

Doctor Vincent proposed three mottoes, first, "With one accord in one place;" second, "Let the word of Christ dwell in you richly;" third, "Feed my lambs, feed my sheep." He felt at home in England, where the hearts of Sunday-school workers were as warm as in America. As he travelled over the little island, great in history, he thought of what a man said about his good wife: "She is little, but oh, my!" After a brief speech from Vice-Chancellor Blake, president of the Sunday-school Association of Canada, Mr. Albert Woodruff, the veteran Sunday-school worker of Brooklyn, said he thought the Convention unique, marking as it did an epoch in the history of the world's progress and brotherly love.

Pasteur Paul Cook, of France, told a story of two candidates who stood ready to perform a certain work. One was eloquent in describing all he could do; the other merely responded, "What the gentleman has

said, *I can do.*" All that had been said, he felt. Pasteur H. Paumier felt much at home, but wanted to talk in French. He hoped the time would come when all flags might be as one flag, and we all might march under the beautiful flag of the Lord, bearing the motto, "The Lord is our light."

Mr. John Wanamaker, of Philadelphia, was introduced as the Samuel Morley of America. He desired that enlarged plans for future work might be matured as a result of the Convention, and suggested the one word, "re-consecration." Mr. P. Palengoist, the Robert Raikes of Sweden, first saw a Sunday school in England, during his visit in 1851. At first, the justices of the peace of that country forbade holding Sunday schools; now they have more than one hundred and fifty thousand scholars. Earnest Doctor Brocknow, of Berlin, president of the Sunday-school Society of Germany, desired all present to pray that his country might be released from infidelity, materialism, and rationalism. He said, Mr. Albert Woodruff first secured the services of Mr. Brockelmann as missionary, who felt that Germany needed Christ more than great learning. "We want the spirit of Luther over again even in this land of Luther."

Dr. William Taylor felt that he had a right both to give and receive the welcome. He was an embodiment of international Christianity. One of the few things that America had not prohibited by a protect-

ive tariff is a minister of the gospel. He saw in the House of Lords, in the picture of the "Embarkation of the Pilgrims," the Bible in the forefront. In Washington, he had also seen the picture of the "Landing of the Pilgrims," and again the Bible was in the forefront. Doctor Burns, of Nova Scotia, exclaimed, "Yonder there are the few who met in Gloucester a hundred years ago swollen to twelve millions, a multitude that no man can number; yonder is the fruit of this blessed system of Robert Raikes." After a few stirring words from Doctor Lowrie, of New Jersey, author of "Shall we gather at the river?" the meeting closed, and the delegates were entertained at tea in the library.

On Sunday the delegates assisted at auxiliary Centenary union Sunday-school meetings throughout London and suburbs. A grand inaugural meeting, in which both the Established Church and the non-conformists united, was held Monday noon in the famous Guildhall. Here every-9th of November, the lord mayor gives a dinner to members of the Cabinet, and a thousand distinguished guests. This historic council-hall is beautiful with its open oak roof, stained glass, statues of Bacon, Pitt, Chatham, Wellington, and Nelson. Precisely at twelve o'clock the lord mayor and lady mayoress entered, preceded by the dignified mace bearer, the chaplain following. On the platform sat the Archbishop of Canterbury,

Lord Hatherley, the Earl of Aberdeen, Sir Charles Reed, Doctors Punshon and Vincent, Aldermen Cotton and M'Arthur, both M. P.'s, and a host of other notables.

The hall, including the gallery, was densely crowded. The lord mayor, who was greeted enthusiastically, said he felt honoured, surrounded by Christians of all denominations, to preside over so important an assembly, in the grand old Guildhall. He was glad to give hearty welcome in behalf of the corporation and citizens of London. A letter was read from the Earl of Shaftesbury, stating that his inability to be present was due to a previous engagement to uncover a statue to the memory of Robert Raikes.

The Archbishop of Canterbury said: "It is the glory of Great Britain that she places in the hands of little children the Bible. Three hundred years ago the teaching of Bible truths to children was inaugurated in Rome itself by Cardinal Borromeo, of Milan. To-day the systematic work begun by Raikes has spread throughout Christendom. I have heard of a poor mill girl, one of the best of Sunday-school teachers, who couldn't pass examination on the history of the kings of Judah and Israel, but she loved her Lord, and could induce little children to love him." I am told that his Grace's daughters are zealous Sunday-school teachers, one having every

Sunday a large class of ragged boys who work in a candle factory.

Sir Charles Reed, M. P., chairman of the Sunday-school Union, as one who has been associated nearly fifty years with Sunday schools, contrasted the great and prosperous metropolis of to-day with London of June, 1780, when arms filled Guildhall, the military St. Paul's Cathedral, incendiary fires burned in all directions, the mob was in full control of the city, and the nation was declared to be on the brink of ruin. The glorious change which we now witness is largely due under Providence to Sunday schools. To-day is fulfilled Adam Smith's prediction years ago, that no plan promises to effect a change of manners among the people with equal simplicity since the days of the apostles.

The two schools of ragged children at Gloucester, taught by two women for a shilling per Sunday, are now represented by a grand total in Christendom of 1,500,000 voluntary teachers, and twelve million scholars. The Sunday-school Union calls for \$125,000 for a loan fund to aid the extension and improvement of Sunday schools of all denominations.

The Earl of Aberdeen and Rev. Doctor Vincent also spoke. The latter said: "In America the children of the rich and poor sit together. I know of no policy by which a wholesome social equality can be promoted, but the policy which opens the Word of

God. Converted Chinamen by the hundreds are on our shores. When Great Britain and Ireland, France, Germany, Norway and Sweden, and the nations of the earth shall establish Sunday schools, the children trained in them will make fine material for American citizens, and they are most welcome."

Rev. Doctor Punshon, of Canada, said : "God sows his seed broadcast, and they spring up in different furrows. While I honour Robert Raikes as the systematizer of the vast Sunday-school idea, I would not forget energetic Cardinal Borromeo, of Milan, and Alleine, the fervid nonconformist, and Stock, and Glasse, the parochial clergyman, and Hannah Ball and Sophia Cook, the godly Methodist women, one labouring at Wycombe, the other marching at the head of Raikes's ragged regiment through Gloucester, and countless more. They all should walk in white, for they are worthy. Mary Jones, the Sunday-school scholar of Wales, who walked fifty miles for a Bible, doubtless was the seed-thought which germinated in the mind of Charles Bala and flowered into the British and Foreign Bible Society."

At three o'clock on Monday afternoon the delegates reassembled in Memorial Hall, a superb stone building recently erected on Farrington Street, in commemoration of those who were crushed by the tyranny of the Stuarts, and driven from their native land to the new world. Vice-Chancellor Blake took

the chair at request of Sir Charles Reed, who disappeared to perform his part in the Bradlaugh matter in the House of Commons. Exhaustive papers were read by J. A. Cooper, of Birmingham, and Doctor Vincent, on the past history of the Sunday-school system. Doctor Vincent said: "In 1729 Edwards began his marvellous revival work in America; in 1735 Howell Harris his great work in Wales; in 1740 James Rolin in Scotland, and about the same time Christian David in Moravia. In 1732 the young Oxford students spent six evenings a week, from six to nine o'clock, in earnest study and worship. Thus the atmosphere was charged with the fervours of evangelical philanthropy, and Robert Raikes caught and concentrated the widely diffused force, and gave it effective application. In the United States to-day (1880) there are: Sunday schools, 82,261; officers and teachers, 886,328; scholars, 6,623,124. Out of the 2,496 counties, nearly one thousand are organized. Every county in New York, New Jersey, Illinois, Connecticut, and Maryland is organized. The study of the same Bible lesson by the whole family, the whole school, the whole church, the whole community, the whole country, the whole Christian world, has given new impetus to every department of church activity."

For this universally systematic study of the Scrip-

tures we were, he said, more indebted to Mr. B. F. Jacobs, of Chicago, than to any other man.

Rev. W. Millard, of Toronto, read an interesting paper on the history and prospects of Sunday schools in Canada. Mr. Edward Glanville in his address told of the work begun in 1841 in the North Island, five hundred miles long by two hundred wide, of New Zealand. Now we have over ten thousand Sunday-school scholars, an open Bible, a free press, Y. M. C. Associations, and temperance societies.

Few papers presented were more spicy than that of Mr. H. E. Wade, of Melbourne, Victoria. He stated that the Australian colonies formed two-fifths of the entire area of the British dominion, which is sixty-four times that of Great Britain and Ireland. Australia nearly equals the United States in square miles of territory. The gold produced in Victoria, since its discovery in 1851, is valued at \$192,250,000. They have over twelve thousand teachers, and one hundred thousand in the Sunday schools.

The Centenary Fête for the children was held Wednesday at the Crystal Palace, a gigantic iron and glass structure, two hundred feet high, twice as wide, and nearly one-third of a mile in length, used in the first International Exhibition of 1851. It is full of objects of interest to children, and surrounded by two hundred acres most tastefully laid out, and ornamented with great variety of shrubbery, flowers,

fountains, and statuary. For a wonder the blue skies were thoroughly American, and hundreds of Sunday schools, making more than forty thousand scholars and friends, gathered as by magic. The whole morning was full of play. The boys and girls filled a hundred double swings, countless boats on the lakes, immense velocipedes turned by steam, which also furnished music, and engaged in races, games, and sports of all kinds.

After lunch came addresses, music by military bands and bell-ringers, and, best of all, a concert by five thousand trained Sunday-school scholars in the famous Handel orchestra. Those who sang the four parts were provided with programmes of different colours, green, pink, orange, and yellow, and the accurate drill by a rapid and changing show of these colours produced a most striking and pleasing effect. A mass concert of thirty thousand teachers and scholars, supported by military bands, was held in front of the Joseph Paxton monument on the ground.

A grand display of the dozen immense fountains, and a balloon ascension, closed a happy day, and tired humanity returned to smoky London.

At one of the Sunday-school meetings in London connected with the Raikes centenary, representatives from the several European countries gave brief, but exceedingly interesting, accounts of the way in which the Sunday school, though late and slow,

has been gaining a foothold there. From their addresses we glean the following :

Mr. Benham, chairman of the Continental Committee, said : " Christians on the Continent are not alive to the duty of lay work, and look upon religious instructions as the function of the minister. Germany and Holland have taken well to the Sunday school. Sweden is energetically at work. Norway, Denmark, and Austria admit a possible utility in the idea, while the work is making rapid progress in France and Italy." Rev. A. Meille, Italy, said that his country, though old in history was one of the youngest in Sunday-school work. It was true that the great Archbishop St. Charles Borromeo established schools over two centuries ago, in the diocese of Milan, similar in external appearance and management to the modern Sunday school, — but without the Bible. Twenty years ago Pastor Appia, of Paris, opened the first Sunday school in Florence, with an attendance of three, which had now increased to more than a thousand. Less than ten years ago Italian cannon breached Porta Rica, through which liberty entered Rome, and the energetic Waldensian church immediately sent down an evangelist to plant Sunday schools at the very gates of the Vatican. One Sunday morning, an hour before church time, an intelligent lad, whose parents had just returned to Rome, whence they had been

banished by the papal government, rang Mr. Meille's door-bell. His younger brother and cousin accompanied him. "My young friend, you have come too early to service." The boy replied, "But, sir, we have come to Sunday school." He thought that of course every church had a Sunday school. They were invited in, and received instruction on the Lord's Prayer, and thus was founded the first Sunday school in Rome. To-day the Sunday-school scholars in Italy number ten thousand or more.

Pasteur Paumier, president of the Sunday-school Society of France, in his interesting address on the work there, said: "You must not forget that we Protestants are scarcely two millions, scattered amongst a population of thirty-six millions, nominally Roman Catholics. Our churches have had, during three centuries of fire and persecution, almost as many martyrs as preachers. Religious liberty began only after 1789. Bordeaux had the first Sunday school. Later, others were founded at Rouen and Paris. Our Union began work in 1852, and Paul Cook, our first missionary agent, reported then 130 Sunday schools. Now Paris alone has ninety schools and nearly ten thousand teachers and scholars. France, 1,080 schools and 45,000 scholars. Rev. Mr. McCall, an Englishman, has done grand things among the workmen of Paris, and his Sunday schools have brought in large numbers of Catholic

children. He has established twenty-three places where the gospel is preached, and eighteen Sunday schools. Placed between the ultramontane and radical parties, we struggle against those who oppose Protestantism on the one hand, and all religious influences on the other."

Mr. W. Brockelmann said: "Germany, in Luther's time, was the heart of European Christianity. Afterward, science had her triumphs, and faith seemed to be dead. The revolution of 1848 revealed the entire absence of religious power to resist infidelity. A few eminent Christians assembled in Luther's old city, Wittemberg, and proclaimed the necessity of Christian home mission work to save Germany. But Sunday schools were overlooked, because under the strict control of the government there existed a perfect system of national education, including religious instruction, which was enforced upon every child born in Germany. It is true that a few Sunday schools had been established by zealous Baptists from England and energetic Methodists from America, but a struggle for exclusion was going on, when, in 1863, Mr. Albert Woodruff spent some time in Germany telling how to start Sunday schools, stirring and cheering, and the English Sunday-school Union came boldly forward with money. Clergymen bewailed increasing infidelity, but thought their system perfect, and the laity an interference.

Schoolmasters were offended, and laymen, when invited to be teachers, were frightened. Wherever our pious teachers invited children on Sunday, they came delighted. In fact, the children themselves had fought and saved the Sunday schools in Germany. Teachers were the great want. All classes have furnished them; the prince, princess, the count, countess, the merchant, the miner, the seamstress, and factory girl. Sunday schools are the 'missing link' in home mission work, the best remedy against bigotry and infidelity, and the best means toward the conversion of children. Now we have two thousand Sunday schools and two hundred thousand scholars. Many papers are published for teachers and scholars, beside a dozen Sunday-school hymn-books, one reaching its fifteenth edition. Now the churches, mission societies, and press speak of our work as a necessity."

Pastor Backman, Sweden, said: "The text, 'Your zeal hath provoked very many,' might be applied to the Sunday-school work in Sweden, which began in 1851, with Mr. Palengoist's return from the exposition at London. The Lutheran Sunday-school Union was founded in 1868, at Stockholm. The cause has made great progress the last few years." Rev. W. Priggen, Austria, said that Austria presented peculiar difficulties to the work, in her eighteen nationalities, including the German, Hun-

garian, Bohemian, Croat, Pole, Slavonian, Ruthinian, and Roumanian, etc., each speaking a language of its own. Till within a century, the Protestants of Austria read their Bibles at midnight, in dense forests. In 1781 Emperor Joseph gave his suffering people religious liberty. The Sunday-school Union of London gave the first impulse to the cause. Seven years ago Rev. D. Moore and Count Bernstoff started the first Sunday school in Vienna, in a fourth-floor lodging. In 1875 a Sunday school, now numbering three hundred scholars, was started in the Evangelical chapel. Recently the Catholics have made combined efforts to annihilate it, but signally failed. Thirty Sunday schools exist in Bohemia, mostly formed in the last three years. Least of all has been accomplished in the great kingdom of Hungary, which reports only seven schools.

Pasteur Jaulmes Cook, referring to French Switzerland, said he was one of a Sunday-school class of nine boys, formed sixty years ago in the south of France, which had furnished three missionaries for the Sunday-school work on the Continent. He had been engaged in French Switzerland as Sunday-school missionary for twenty years. Work done in this small country, with its four hundred thousand Protestant population, is work also for other countries. Being the centre of Europe, and blessed with liberty and excellent instruction, it has been a refuge for

many, especially for the heroic French Protestants, who brought their industry and their faith. The rare beauty of scenery ought, it would seem, to impress all with deep religious feelings; but love of pleasure, drunkenness, etc., have impeded the course of even many Christians.

"Sunday-school work is much needed in Switzerland. The beginnings of this work were very humble. I have lately heard that as early as 1821 a small Sunday school had been opened in a very little village of the Canton de Neuchatel, and, what is most remarkable, this school still exists, and with the same teacher. She was a young girl at the time, and still continues her work, though she is almost eighty years old."

Pastor Heybrock stated that the first Sunday school in Holland was started in 1829, by a member of the English Established Church, but died out. The year 1836 was the proper year of the establishment of the Sunday school in Holland. Dr. A. Capadote, a converted Israelite, after seeing Sunday schools in Switzerland, made them widely known to his countrymen in religious periodical writings, and organized a school in his own dwelling in The Hague. Pasteur A. Brocher said that Belgium had fifty Sunday schools in a Protestant population of fifteen thousand out of five million inhabitants. The work there is largely a missionary work among Catholics. Forty years ago was born the Belgium Missionary

Church, of which he was one of the pastors. They have twenty-six congregations, thirty Sunday schools, and eleven hundred scholars. Some of the converts from Catholicism, though plain working men, are now able to teach in Sunday schools and preside over meetings. God's spirit is at work in the hearts of the young. Great hopes for the Sunday-school cause in Belgium are entertained since the new law passed, which deprives the priests of any authority in the public schools.

Mr. Woodruff told how the really great work of the Foreign Sunday-school Association, which he was compelled to form, is done. Letters come in many languages. The teachers of foreign languages in the Female Seminary, Brooklyn, translate the letters, and a corps of ladies answer them. These young women of Brooklyn have become foreign missionaries in assisting to establish Sunday schools all over the Continent of Europe. Most of the answers go in the English language, which he believed would yet be the vehicle of the gospel, the world over.

Pastor Bloesch said : " Brandenburgh is my home ; the cradle in which the whole German Empire was raised. But let me tell you of my little village. I came to my parish in 1862, a young minister, who had studied at the university and taken holy orders, yet I did not know how to lead my people to Christ,

because the gospel had not yet touched my own heart. I preached Sunday morning and read Christian papers in the afternoon, and finally I became very ill in body and soul. Under my physician's advice, I sought health in the springs of Bohemia. There I heard of an American family interested in Sunday schools. A few weeks after returning home I was surprised to receive a letter from a daughter, sixteen years old, of this family, urging me to establish a Sunday school. A girl of fifteen or sixteen advising a man in holy orders! And then the advice came from America, where our criminals go. The American girl also wrote to Mr. Brockelmann. At length I made the attempt to start schools, and for nine years I have had intense pleasure in it. Now I preach three and four times a Sunday. It was a child's voice that crossed the ocean. I obeyed the voice, and the Sunday school has proved the well-spring of my own spiritual life, as it will, I trust, that of all Germany."

It was delightful to see the cordial hand-shaking between the French and German delegates. Both Paul Cook, of Paris, and Doctor Brocknow, of Berlin, were enthusiastically received. Mr. Cook said: "I know many Englishmen who think that the English language is the only language worth anything, but the French language is not yet dead.

I am surprised to learn at this convention of so extensive a constituency. In France, French Switzerland, Belgium, Waldensian valleys, and Canada, there are not less than 1,874 Sunday schools, eight thousand teachers, and ninety-four thousand scholars learning the Bible and how to come to Christ, whilst they do not know a word of the English language. Thirty-five years from now we shall expect you all to attend a Sunday-school centenary in Paris, and it will not be impossible, if you reach the age of my father-in-law, ninety years, the oldest French minister living."

THE SUNDAY-SCHOOL CENTENARY,
LONDON
(Concluded)

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"THE Church of Christ in its Relation to Sunday-school Work" came before the Convention, reassembled in Memorial Hall, Thursday morning. Henry Lee, Esq., M. P., presided. He said: "The people in King James's time did not know what to do with themselves on Sunday, so the king compiled a 'Book of Sports.' It directed that all Puritans, and all persons not considered respectable, be imprisoned if they disobeyed. Later, Robert Raikes placed the Word of God before the people on Sunday. If the Sunday-school work succeeds the next one hundred years in the same ratio as the past, it will revolutionize the world." The Sunday school quickens desires for respectability and influence, awakens a thirst for knowledge, teaches the necessity of obedience to law, forms habits of study, and wins souls for heaven.

The Rev. C. H. Kelly, secretary of the Wesleyan Methodist Sunday-school Union, believed that Sunday-school teachers were church officers, and

that their commission to "go and teach," came from the Head of the Church. The Sunday school was part and parcel of the church. The pastor should feed the lambs as well as the sheep. Queen Anne once occupied a building in Wandsworth, with the nursery some distance off. Queen Victoria's throne was established on domestic love. To-day the English nursery is part of the home. So it must be with the Sunday school and church. If Christianity would possess the world, it must first secure the children. We want teachers who see beauty in every human being, whether born in palace or hovel. In a report just published by our Union, covering the last ten years, the average increase of church-membership outside the Sunday schools has been 8.3 per cent; including the Sunday schools, forty-six per cent.

Mr. J. Croil, Montreal, said: The Province of Quebec is small as compared with the other eight provinces of Canada, and yet it is as large as the whole empire of France. Sunday-school work began with us in 1811. One-half of the congregations in the Dominion owe their existence to the Sunday-school movement.

Rev. G. S. Griffith, Baltimore, president of Maryland Sunday-school Union, reported that in the State of Maryland four-fifths of all those from five to eighteen years of age are in the Sunday school;

nearly fifty thousand more children than attend the day schools! Maryland employs three missionaries and one superintendent, all under salary, in this work.

Rev. N. Hall thought suitable agents of great value in training superintendents; that the minister should show his face in the Sunday school every Lord's day, and that every child ought to know him as a loving friend. Most of the officers of the congregation ought to be teachers, and all should be visitors.

Mr. J. C. Courtney, Georgia, said the International Convention, held at Atlanta three years ago, had fired his heart and reconverted him.

Vice-Chancellor Blake, Toronto, said the pew must respond to the appeal from the pulpit. As John Wesley said, "They added to my one voice in the pulpit a thousand echoes in the pew." We need to remember the answer given by a boy, whom a man knocked against, and asked: "Who are you?" "Sir," said the lad, "I am the stuff they make men of." Our children are soon to be the bone and sinew of the land. Taught the Bible when young, they will be orderly citizens when grown up. The absence of reverence to the great Being leads to Nihilism and Communism.

Rev. Asa Bullard, Boston, said: Bring the little ones into the church. It is not true that all pious

children die young. The churches are full of them. "You are too young," said a minister to a six-year-old Christian. She replied, "Jesus said, 'Suffer little children to come unto me, and forbid them not.' " Give shelter to the little ones.

Others talked, from Kentucky, Iowa, Belfast, Leeds, and the morning session adjourned.

At the afternoon session, Col. J. T. Griffin, Buffalo, presided, and introduced, with a few fitting words, the topic, "The Word of God, the Appointed Instrument of Religious Education."

Rev. John Hall, D. D., said: With the education of the eye, the hand, and the brain, if we are to be good citizens, good in our homes, we must have the education of the conscience, and this comes of God's Word. I have gone into the pulpit trembling, and left it with the thought, "Well, after all, what I have told the people was the truth of the living God." I am nothing; but his truth is mighty, and he will bless it. I have no right to expect God will bless my dabbling in philosophy or science. In a light and jaunty way some say the Bible is obsolete. Books on surgery, military tactics, and travelling, written one hundred years ago, are obsolete, because anæsthetics, improvements in gunnery, and railways have made vast changes. Which of the great things of which the Bible treats has changed? Have human nature, human conscience, moral right, moral wrong

changed? Has his holy Son changed? Has heaven or hell changed? Why, no! and if not, then the Bible has undergone no change, for it has dealing with things that are fixed in their character, that are universal in their bearings, and that must weigh with the human race while the human race is in existence.

The Rev. Charles C. E. B. Reed, M. A., secretary of the British and Foreign Bible Society, next read a most interesting paper, in which he said: "Marvellous tribute to the Bible that it should have held its ground all these years as the lesson-book in the Sunday school, displaced by no rival. In it are narratives of adventure and escape, the tenderest passages of family life, the gems of poetry, the choice settings of parable, the supreme flights of eloquence; a procession moves before us of kings and warriors and men of peace. Cardinal Newman has said: 'Bible religion is both the recognized title and the best description of English religion.' We should use the Bible in the Sunday-school class with reverence, intelligence, simplicity, and sympathy."

Rev. D. R. Breed, Minnesota, said: "The key-note of the whole Bible is man's sin and man's Saviour."

Many more valuable suggestions followed, when the meeting adjourned.

The Friday morning conference was presided over by C. Tyler, Esq., F.G.S., and Rev. J. Clifford, M.A., LL.B., read an admirable paper on the

"Sunday-school Teacher for the New Century." We give only a few of his many wise suggestions. "The power of the Sunday school is the power of the teacher, which depends upon personal qualities and services." Sir Garnet Wolseley says he owes all his victory to the firm step, good order, prompt obedience, and splendid heroism of his men. What genius is to the artist and the poet, inspiration to the prophet, courage to the soldier, that spiritual vitality is to the successful Sunday-school teacher. He must have Christ in thought and will, conscience and affection. Nothing but fire kindles fire. Carlyle says, "Souls grow more by contact with souls than by aught else." The heart is the best theologian, and truth in the life the best of teachers; but the Sunday-school teacher must be capable of sharply cut, central, consistent, and harmonious ideas of Christian truth, and some faculty in clear statement. He should earnestly covet Socrates's mastery of the art of questioning, which consisted of a unique faculty for cross-examination, and for stimulating and pursuing truth and unmasking error. Children should be taught to think, and to think rightly about God. Oh, for this grand work, how we need patience, energy, watchfulness over self, faith, enthusiasm, delicate tact, winning arts, and personal power of the highest sort! The late Doctor Raymond, president of Vassar College, once said, "The investigator

finds his enjoyment in exploring new fields, a teacher in developing new minds." If Sunday-school teachers possess unselfish devotion, gracious tempers, beautiful spirit, and a burning consecration, our schools will be filled with willing disciples of the Lord Jesus.

Mr. B. F. Gough, Bristol, who had taught forty-five years, believed a teacher should always show a shining face, and give a welcome shake of the hand.

The Rev. Doctor Lowrie, of New York, author of "Shall we gather at the river?" said the best teacher was the man who spoke the word that God gave him, and by God's spirit put the word into the heart of the scholar. The A B C of a teacher's qualifications are, first, aptness to teach; second, Bible knowledge; third, consecration. Without consecration, truth will strike against the soul like an iceberg. The teacher's heart must be on fire for souls, and the constant prayer be, "My class for Jesus."

We were glad that several women delegates were present. A very suggestive paper, on "The Education of Teachers for their Work," was read by Miss J. B. Merrill, of New York, in which she said: Pestalozzi's motto was "Education has to work on the head, the hand, and the heart." The Sunday-school teacher needs a right appreciation of the nature of his work, and then the actual knowledge he desires to impart. The glass-blower seeks to

know the nature of glass, the potter of clay, the farmer of the soil and the seed. The Sunday-school teacher should study every child he meets, as a naturalist studies specimens. One in the habit of looking into popular children's magazines and papers, cannot fail to grow into sympathy with boys and girls. Learn to cultivate the faculties of the child's mind, in their natural order; that is:

First. The Perceptive Faculties.

Second. The Retentive Faculties.

Third. The Reflective Faculties.

Lead the pupil to discover knowledge for himself. Have him first get the idea, and then give it expression. The teacher should learn to work out principles into methods, and form the habit of testing methods.

Mr. Lindall reminded us that the teachers of the future are now in our schools, and their education has commenced. How the fact emphasises the duty of a Sunday-school teacher. He also recommended training-classes for teachers, and suggested that the course cover four months annually in the fall, and that it embrace these subjects:

First, The aims of the teachers. Second, The means he employs. Third, The intellectual and moral nature of children, with the principles governing their instruction and training. Fourth, The different methods of teaching, with the science of

the construction of lessons of different kinds. All these subjects are dealt with in various text-books.

Miss Marianne Farningham was warmly welcomed. She thought that it was possible for Sunday-school teachers to become too bookish. Better to be a man and woman in a class, than the best book ever written. She was told that gentlemen, engaged in revising the Scriptures, hesitated over that word "helpmeet;" that it scarcely expressed what it meant. One gentleman suggested changing it to "Answering to men." They had a little talk about it, but decided that woman was quite quick enough now in answering to men, and with scriptural authority there would be no telling where they might stop. Teachers should keep eyes, ears and hearts open, and give to their scholars that which active life had given to themselves. Let every new, good thought — they come from God, and are not many — be given to the children.

Miss H. N. Morris, Brooklyn, opened the subject, "Methods of Teaching," by a bright and practical address. We should so approach children that they may apprehend the truth, approve it, accept and apply it. Bunyan quaintly expressed it, "through ear-gate, eye-gate, and mouth-gate." "The fruit of the spirit is love; which shows itself in joy, peace, long-suffering, gentleness, goodness, faith, meekness, and temperance."

Rev. W. F. Crafts, Chicago, said the great teacher employed two methods, viz., questions and illustrations. To develop questions is a difficult habit to acquire. Jesus uses reviewing questions; also illustrations very largely.

At the close of the discussion, Rev. Doctor Vincent, of New York, in order to give practical effect to the deliberations of the conference, moved a resolution for the appointment of a permanent committee on the subject of Sunday-school teaching, with a view to the preparation of a general international normal scheme of study for teachers; which was carried unanimously, when the conference adjourned.

Judge Harmon, New York, presided at the afternoon conference, and said: "When a child commences to compare, contrast, and infer, and come to conclusions, then is the Sunday-school teacher's opportunity to give reasons for believing. When I left college I determined not to believe what I could not reason out, but a godly mother told me to have faith, and it changed all my views. Young men need definitions of faith and belief, and to know what relation faith has to belief. This is the point at which skepticism begins."

Doctor Vincent said he did not mean, by "Modern Sunday-school Ideas" (the subject), new ideas, for he was afraid of new ideas. The nearer they could bring the Sunday school of the nineteenth century to the

school which sat at the Master's feet in the first century, the better it would be for the centuries to come. Sunday-school teachers should control educational forces. He had experimented in America with a scheme of popular education by which a boy, reading forty minutes a day in Greek, Roman, and English history and literature, through a series of years, had acquired wonderful proficiency. Sunday-school teachers require some such scheme, so that religious and secular culture may be combined.

Mr. W. H. Grover said: "Just as intellectual supremacy is succeeding the material supremacy, so moral supremacy is sure to follow; when the public sentiment will be the sentiment of our poet laureate, 'It's only noble to be good.' Then the work of the teacher who seeks to engrave the image of God in the soul of the child, will rank with the work of any painter or sculptor."

The subject next considered was, "The Young Outside the Sunday School. How they may be brought in," which was introduced by Mr. Benjamin Clark, the genial and courteous editor of the *Sunday-school Chronicle*. He said: "The saddest sight is that of a child who has never known a mother's love, and who has been robbed of his God-given birthright, a happy childhood. The streets in all our great cities are full of uncared-for children. Do you wonder that the Saviour was moved in heart, by the sight

of a multitude? In this great work we need his gentleness and winsomeness. Mission schools must be extended. The 'Gifford Mission Hall,' with which I am connected, has five hundred scholars. We have introduced flower cultivation, believing that these lovely gifts of our Heavenly Father attract and humanize. Ten thousand packets of flower seeds have been distributed this spring to other schools. Another feature is an infant play-room, open in the winter, when swings, rocking-horses, and all sorts of games and toys are furnished. An adult week-night Bible class has proved valuable.

Rev. B. W. Chidlaw, Cincinnati, followed: Years ago, Sir Charles Reed said, in Philadelphia, "We must go lower, and strike higher, if we would succeed." Fifty-seven years ago the American Sunday-school Union was formed, and its object is to establish a Sunday school wherever there is a population. Last year sixty missionaries were employed to plant the Sunday-school banner, and help to keep it waving. The new schools organized, 1,277; new scholars, 46,727. In fifty-six years, the society has organized: Sunday schools, 68,431; teachers, 441,085; scholars, 2,916,600. Contributions for support of the work last year were \$84,218; books published for Sunday-school libraries, 1,200.

Mr. J. R. Curtis, of the Ragged School Union, said "that the Union gave prizes to those boys who kept

their situation for a year. From the Ragged School have sprung night schools, industrial institutes, homes for boys and refugees, also training-ships, shoeblack and messenger brigades, etc. Better than large meetings is to gather in separate rooms, not more than forty or fifty at a time." The last topic considered by the Convention was, "Adult Sunday Schools," which was made intensely interesting by Mr. Councillor White. He said: "The school in Birmingham, carried on for nearly thirty-five years by the Society of Friends, and in which I have been a teacher for more than thirty years, had its origin in a suggestion of the late Joseph Sturge. This school now numbers three thousand adults over twenty years of age, seven hundred of whom are women. We occupy some of the public-school buildings. Other denominations have taken up the work. We are careful not to call them Bible schools; simply schools. They commence at half-past seven o'clock on Sunday morning, with the reading of the Scriptures, followed by a brief prayer. One-half the school, or the class, then proceed with writing; those who are sufficiently proficient writing texts or poetry, while the other half are engaged with the Scripture lesson. At the end of the first hour, another chapter is publicly read, and those who have been reading go to the writing-desks, and exchange with the writers of the first hour, who in their turn receive their Scripture lesson during the second hour.

The scholars render great assistance in looking after a poor drunkard, an unfortunate prisoner, or if a distant town needs a deputation. I have three hundred adults in my class. Never have I known more of self-denial than in these early schools. Many men who thus begin the Sabbath will spend the entire day better. One scholar said to me, 'You see we must knock off drinking Saturday night, and get earlier to bed if we come.' 'It also breaks off our lazy lie-abed habits.' Another scholar told me, 'Many a man has come into these schools a blackguard, and been turned out a gentleman.' The schools in Birmingham have six thousand adults, and every church has had accessions to its members through this instrumentality. Special schools for adults have been started in manufacturing and commercial cities, such as Sheffield, Leeds, Hull, York, Plymouth, etc. Teachers in adult schools specially require genial and fraternal manners, and sanctified common sense. This plan will assist to solve the problem of how to bridge over the gulf that separates worshippers in the church from non-worshippers.

The chairman then called upon Mr. John Wanamaker, Philadelphia. He said the English people had patience. He believed in adult Sunday schools, but not apart from the children. He had only learned the A B C of the work. He had in his school three generations. We must have all Ages.

The "B" he would appropriate to Buildings. He had seen in London a £70,000 church, and a £70 Sunday school in connection with it, the latter a good place to stow potatoes. He was superintendent of a school provided with 3,020 seats and dividing sashes with separated classes. He could count up nearly 1,200 adults in the school. To come to "C," you must Concentrate your energies on one session. Better have one good, grand service. Our session is two hours. If we might add a "D," he would say: Dismiss all Difficulties.

On Friday evening a communion service was held at the Metropolitan Tabernacle. Twenty-five hundred persons were present, including the delegates; some of whom assisted Rev. C. H. Spurgeon, who delivered a warm-hearted address. Mr. Spurgeon said: "How glad I am to see you present. We are met together first of all for communion with the Lord Jesus Christ, but next for communion with one another. I do not believe it is possible in any way for Christian people to restrict communion. I believe attempts are made to do it outwardly, but it cannot be accomplished. If any man is in the body of Christ, he must, of necessity, have fellowship with all the rest who are in that body. I may, if I please, consider that this hand of mine is not properly washed, and, therefore, my well-washed right hand shall have no fellowship with it, but it cannot carry

out its design until it be struck off from the body. The life of Christ is one. One heart sends a pulse through the entire frame. One head contains the thoughtful life of the entire body. To-night I feel that the blood of Christ is a great deal thicker than the water of my baptism. I hope that while you shall be of the United States, and you of France, and you of Germany, and we of England, and so on, we shall be cosmopolitan in Christ, and after all feel that our one country is beyond the river, and our one King is Jesus."

At Mr. Spurgeon's suggestion, the whole of the vast congregation joined hands in an unbroken chain, extending from the floor to the platform and from the platform to the gallery above, while Cowper's hymn beginning, —

" Ere since by faith I saw the stream,
His flowing wounds supply," —

was sung with deep enthusiasm, the effect being remarkably solemn. The service was closed by benediction.

The crowning event of the week was the ceremony of unveiling the statue of Robert Raikes, by the Earl of Shaftesbury. The statue, by Thomas Brock, is of bronze mounted on a pedestal of Cornish granite, and represents Robert Raikes in the graceful and somewhat picturesque costume of his time, with the

Bible in his left hand. The monument stands in the gardens, on the Victoria embankment of the Thames, almost directly facing the Cleopatra Needle, to which a happy allusion was made by Lord Shaftesbury. Its cost was about \$7,000, and the money was given by the Sunday-school children of Great Britain. Recently Shaftesbury also unveiled another monument to Raikes in the Gloucester Cathedral, opposite Jenner, the great physician. A most delightful Sunday-school concert was held on Saturday afternoon, in Albert Hall. This monstrous structure cost \$1,000,000, and has eight thousand seatings, and an organ with eight thousand pipes, which is blown by aid of two steam-engines.

The committee of the Church of England Sunday-school Institute proposes to form a Centenary Commemoration Fund, to provide for its use a suitable building in London, and to restore the early schools identified with Robert Raikes. Twenty thousand scholars of the Church of England Sunday school gathered Saturday afternoon at Lambeth Palace, London. This army of Sunday-school children bore banners and flags of all nations. Military bands furnished stirring music. The Archbishop of Canterbury, accompanied by the lord mayor and the sheriffs of London and Middlesex, in their carriages of state, inspected the schools, stationed in the centre of beautiful palace grounds. Upon the arri-

val of the Prince and Princess of Wales and their children, the royal flag was raised, and "God Save the Queen" was sung by over four hundred Sunday schools. A blind mission Sunday-school girl was chosen, in behalf of all the Sunday schools, to present Bibles and prayer-books to Princes Albert (now King Edward VII.) and George, and the three princesses, Louise, Victoria, and Maud, the five prettily dressed children of the much-loved Princess of Wales. In review, before the Prince of Wales, his family, church dignitaries, and delegates, the schools marched by divisions, preceded by several Sunday-school bands and the waving of banners. The continued huzzas, the enthusiastic children, bespoke a most loyal affection, to which the royal family responded warmly. Such grand centenary proceedings are worthy of London, and a heaven-born cause like the Sunday school.

SUNDAY-SCHOOL STATISTICS, JUNE 1, 1899.

Number of Sunday schools in the United States, 137,293.

Number of Sunday-school officers and teachers in the United States, 1,399,711.

Number of Sunday-school scholars in the United States, 11,327,858.

A FÊTE OF THE FRENCH REPUBLIC

A FÊTE OF THE FRENCH REPUBLIC

THE Fourth and Fourteenth of July symbolize American and French liberties. The siege and surrender, July 14, 1789, of the famous Bastille, emblem of Bourbon despotism, fixes a date whence sprung the Revolution, and the stirring history of modern France. Its anniversary, therefore, is most appropriate for a national holiday.

On rare occasions, London can effectively illuminate her sombre streets, Berlin and Vienna can make massive displays; but Paris, always bright and gay, alone possesses that exquisite taste which fascinates the world. On festal occasions she rivals the fairy scenes of even Venice when a sovereign city.

Better than any other people, the French know how to organize and enjoy a national holiday. Business is suspended, and the programme of amusements is drawn to keep the entire population in happy spirits the whole day. The attractions are wisely located in every quarter of the city; thus crowds are avoided, and at candle-light all horses and wagons are driven from the streets.

On the evening before the fête, a few of us Ameri-

cans drove out to see Paris decorated. Generous flags of the two sister republics floated from the driver's seat. Our route lay through the magnificent Avenue de l'Opéra, adorned with electric lights, past the elegant Théâtre Française, and along the Rue Rivoli toward Belleville, or "blouse-land."

The French have cared but little for flags since their eagles sank in fire and blood. The tenth year of the republic, however, has intensified their affection for the old flag so often rendered sacred by French valour.

We found the boulevards and streets from the Madeleine to the Bastille ablaze with the tricolour.

Morici's model of a new statue of the Republic, in the Place de la République, had attracted an admiring crowd. Busy workmen were removing the scaffolding. It is a majestic standing figure, holding aloft an olive branch. The expression is earnest, peaceful, and kindly. Three figures surround it, Liberty, Fraternity, and Equality. In the large open space around the sculptured group stand sixteen obelisks and columns, ornamented with red escutcheons and shields, bearing patriotic inscriptions.

The whole population of Belleville and the workmen's quarters were in the windows and streets, busily decorating. Arranged at every story were tricolour flags and paper chains. Women were making flags, men erecting evergreen arches at the

intersection of streets with boulevards, and paving-stones were torn up that trees of liberty might be planted. Some even painted their houses blue, white, and red. The lavishness of decoration in every window of the narrow streets and alleys evidenced much self-denial and ardent patriotism. Already women and children marched in groups, with Chinese lanterns, and sang the Marseillaise. Posted conspicuously were fiery red placards announcing Rochefort's new paper in the morning.

In one of the crowded thoroughfares, a young Frenchman, dressed in a blouse, touched our hearts by tenderly gathering our flag in his arms and passionately kissing the stars and stripes, saying: "Vive la Liberté."

All the tricolour flags contained two yards or more; no tiny flags as seen in America, and but few large ones swing across the streets. The profuse decorations by the poorer classes contrasted strongly with the meagre display of the aristocracy.

Public buildings, and churches which are municipal property, had flags and illuminations prepared. Several hundred flags were grouped in front of the Church of the Augustins, where masses are said for the Bonaparte family. One notes the irony of fate. Other avenues resembled shady groves, the abundance of tricolour being tastefully toned down with a mixture of evergreen.

Later in the evening the Municipal Council of Paris entertained delegates from the Provincial Municipal Councils in the Tribunal of Commerce, which was brilliantly lighted. M. Victor Hugo was received with great enthusiasm, and in response he said: "The morrow makes a great era in French history."

In the evening, at eleven o'clock, we drove to President Grévy's reception. Lord Lyons and General Noyes called to pay their respects. The officers of the French army, numbering hundreds, and the *élite* of Paris crowded the elegant suite of rooms at the *Élysée* Palace. Strong lights revealed, to the best possible advantage, insignia of rank, delicate dress, flowers, and exotics. A military band, stationed in the extensive gardens, furnished delightful music. Electric lights transformed fountains into sparkling diamonds, and made "Diana and Stag," "Laocoon," and other pieces of statuary, seem fresh cut as from the quarry. Chinese lanterns hung in the trees, and coloured lights bordered the serpentine walks along which the guests gaily promenaded.

Both the noble and the brave were presented to President Grévy, and his pleasant wife, with a simplicity that marks the receptions given at the White House. Of course all eyes centred upon the President of the Republic. He is full size and finely proportioned. His white hair, dignified and affable

manners, made his honoured title all the more seemly. We liked his quiet manliness and kindly face, which bespoke an ambition only for the people's good. His penetration and sagacity make him one of the foremost statesmen of France. Gambetta's character may be expressed by one word, Force; Grévy's by the word Peace. No wonder that Frenchmen trust implicitly both these statesmen.

At eight o'clock, Wednesday morning, the booming of cannon ushered in the rejoicing of the new holiday. M. Rochefort's new journal, *L'Intransigeant* (The Unchangeable), was sold from every kiosk and eagerly read. In his first editorial, headed "Mercy," Frenchmen are thanked for amnesty. He says "their kindness causes him to forget long years of exile and suffering."

At an early hour Parisians were moving by trains, teams, and on foot toward Longchamps (the French race-course), the dense crowd reminding one of Derby Day on Epsom Downs. The French army had been promised a grand review and new flags. Our party of five Americans went via the Seine River, on one of the numerous small steamboats. Cavalry and infantry were moving down both banks of the river toward the place of rendezvous. At each landing the boat took on only a limited number of passengers, showing the same consideration which is practised by the great omnibus companies of Paris.

This charming ride of seven miles gave one time for reflection. Such festivities must to-day revive strange historical recollections in the minds of many old people in France. They will recall the return to power of Louis XVIII., after the downfall of Napoleon the Great. Doubtless some witnessed the splendour of Roman ritual at the coronation of Charles X., at Rheims. Possibly the same bishops beheld the weird ceremony at Notre Dame, when Pius VII. journeyed from Rome to Paris, not to crown Napoleon, but to see him crown himself. Each July during the reign of Louis Philippe, the "Citizen King," brought annual gatherings around trees of liberty. Next came those four terrible days of June, 1848, when more French generals were slain in the streets of Paris than on their most disastrous battle-fields.

Cavagnac and Lamoricière paved the way for the presidency of Louis Napoleon, who on December 2, 1851, executed the memorable coup d'état.

The Parisians, for years, revelled in fêtes, and the gala days of 1867 were honoured with the presence of the crowned heads of Europe.

Fresh in mind is the sudden invasion of the Germans and the fabulous indemnity of one thousand million dollars.

Several years ago, visitors at the World's Exposition marvelled at the recuperative power of a crushed nation. Paris indeed has forgotten her sadness, and

smiles through her tears. To-day she is again the brightest centre of all Europe.

Reaching Suresnes, we came at once to the reserved grounds, and were admitted on gray tickets to seats in the Tribune, the centre of which was occupied by the Minister of War, Madame Grévy, and the Corps Diplomatique. Two hundred yards opposite stood the grand Tribunal. This pavilion, five hundred feet long, was covered with pink and white bunting, and richly curtained with crimson velvet and golden fringe. Gilded columns, bearing statues of Liberty and Peace, flanked the centre pavilion. Costly carpets covered steps and platform where stood the chairs of state. Behind these chairs were grouped the President's official household. Cavalry escorted the Senate and the Deputies to their seats in the right and left wings. Kid gloves and much white linen made official character sufficiently Frenchy in appearance.

On either side, over the green fields, were massed thirty thousand troops, — representative soldiers from every corps of the French army. Not a flag was visible.

The view of Longchamps, under the bluest of skies, was picturesque in the extreme. A wide fringe of fresh foliage framed the whole picture, starting at the Cascade and quaint mill on the left, and stretching away right and left toward St. Cloud, Mount Valerien

frowning over all. Hundreds of thousands of men, women, and children, in every colour of dress, surrounded the immense semicircular fields, and made the most of every tempting slope and grateful shade.

Precisely at half-past twelve the official tricolour was hoisted above the grand Tribunal, a buzz of excitement was observable among the dense masses to the left, a puff of dust under the trees in the Bois de Boulogne, and columns of dragoons emerged escorting the President of the French Republic, whose arrival was announced by the discharge of artillery.

M. Grévy, M. Leon Say, M. Gambetta, and M. Freycinet, the four Presidents, took their seats amid loud shouts of "Vive la République," and the soul-stirring music of the Marseillaise.

General Farre, Minister of War, on horseback, with drawn sword, saluted President Grévy, and then the generals of every command gathered about Farre in front of the Tribunal; behind it stood hundreds of colonels.

President Grévy read from a paper a brief, formal address, which condensed was as follows:

"Representatives of the French army: The republic is happy to-day to find itself in the presence of the national army, to which France gives her dearest, most generous, and most valiant youth; receiving from it, in return, her sons disciplined in

patriotism, honour, and respect for authority. The army is a guarantee of peace which France means to preserve. I thank you for it. In this spirit the government hands you these flags. Receive them as testimonials of your bravery and fidelity. With these noble ensigns, the country confides to you the defence of her honour, her territory, and her laws."

When the applause had subsided, the new flags appeared. The banners were silk, richly embroidered, and bore regimental devices and the names of distinguished battles. These same flags were ready for distribution under M. Thiers. President Macmahon also delayed, fearing to "Republicanize" the army, the Duc de Broglie and his friends meanwhile scheming for a Royalist restoration.

The distribution of four hundred and thirty-six standards now began. From the rear of the platform, two colonels abreast approached the President, bowed, received each a flag, which was lowered in salute to the government, handed to the ensigns, and borne away. Half-minute guns discharged, and bands playing during this ceremony, rendered the effect very dramatic. For thirty minutes the two streams of tricolour flowed right and left, making the "army terrible with banners."

The "Presentation of Eagles to Napoleon's Generals," as pictured at Versailles, was fairly eclipsed.

After these regimental deputations, with their new

flags, had passed in review, they were stationed in a long line parallel to the stands, and formed a background alive with colour and animation. The soldiers from Algiers and other African colonies, with crimson and white loose tunics, were much cheered. The whole army now began to move. The glistening of thirty thousand helmets, cuirasses, and bayonets in the bright sun made a brilliant sight. First came the Military School of St. Cyr, keeping perfect time, followed by the infantry of the line in column, which marched with great precision; their easy swing of step, however, did not exhibit that uniformity and briskness which characterises the German and English soldiers. At a trot came the artillery, battery by battery, with alternate gray and bay horses, and new breech-loaders, and lastly, cavalry, by squadrons; and all made a magnificent sight.

Louis Napoleon, twenty-eight years ago, as President of the Republic, presented the army with new tricolour flags, surmounted with eagles, in place of the cocks under Louis Philippe.

Such scenes also remind you of the striking Fête de la Federation, held July 14, 1791, in the Champs de Mars. The Mount de la Concorde was lifted to an immense height, with pickaxe and shovel, by the voluntary services of a hundred thousand citizens, young Bonaparte and Louis Philippe among the number. On the steps of this unique altar to Liberty

were grouped the liberal of the court party and those foremost in the Revolution. Above them stood Louis XVI., with Talleyrand acting as bishop, swearing fidelity to the constitution.

Frenchmen, overjoyed that the era of fraternity had set in, fell into each other's arms, unmindful that the Reign of Terror was rapidly approaching.

Returning to Paris, we saw thousands of people at their out-door dinners, around the charming lakes in the Bois de Boulogne. The outer boulevards were turned into fairs. Evidently, all the giants, dwarfs, wizards, athletes, phenomenal human beings and animals and feathered mice in Europe, were gathered at the fête. The steam merry-go-rounds, that grind out music, did a thriving business.

The climax of fête gaiety came after sunset, when Paris was again bathed in floods of light, which made the night scenes a wonder of magnificence.

The mayors of each of the twenty arrondissements, aided by public and private subscription, exhausted their ingenuity to produce originality in amusements and spectacular effects. In the Place de la Concorde, a hundred lamp-posts had each a cluster of twenty gas burners, with a festoon of fifty burners hanging from cluster to cluster. The same system was continued up the Champs Élysées, and repeated in the Place de la République; more than ten thousand semi-transparent white globes covered the gas-jets.

The Tuileries were studded with Venetian masts, shields, trophies, and lights. The flower beds in the gardens were bordered with coloured lamps fed with oil, as in olden times. Masses of green and red lights, ornamentally arranged on lattice framework, banked the broad roadway stretching from the Louvre toward the Arc de Triomphe, and surrounded the fountains. The combined effect of flags, festoons, clustered and coloured lights, and reflections in the fountains was fairy-like. On both sides of the Seine, the illumination was of unequalled splendour. Gilded spires and domes were exchanged for robes of fire. Electric lights on the distant Trocadero, long lines of closely set gas-jets burned on the Palais d' Industrie of 1867, and the graceful dome of the Pantheon resembled a monstrous lamp in the sky.

The Chamber of Deputies and other public edifices abounded in illuminated escutcheons and emblems. The architectural beauties of the Grand Opéra, classical Madeleine, and lofty dome of St. Augustin were outlined in fire; like St. Peter's in the days of papal supremacy.

The west front of Notre Dame afforded one of the finest sights. Twenty-five electric lights, reflectors concentrating every ray, transformed the gorgeous cathedral, in which Bonaparte and Josephine were married, into a gigantic porcelain edifice. Its forests

of weird statues and carvings impressed spectators with a silent awe.

The base of the July Column, which is surmounted by a bronze Genius of Liberty, was lined with gas-jets, and electric lights were placed at the four corners of the Capitol, 140 feet in height.

On noted buildings, bouquets, garlands, and a tasteful variety of tracery were produced by curiously twisted gas-pipes and coloured tiny globes. Bengal fires and other devices made heliotrope and violet lights. Over all, as if to blot out the moon and stars, floated hundreds of illuminated balloons. The bewildering effect surpassed Aladdin's Palace, though built of diamonds, emeralds, and rubies.

Over half a million strangers were in Paris, and, to break up the vast accumulations of humanity, displays of fireworks were made at six elevated points. Over thirty thousand francs were expended on the top of the Arc de Triomphe alone. When abundant rockets and Roman candles had been shot off, suddenly, amid a shower of bombs, as if by enchantment, a colossal figure of the Republic rose, surrounded by all the colours of the rainbow.

At nine o'clock occurred an unexpected addition to the fête programme. A flash across the sky, another, and still another; a zigzag serpent dims all illuminations, and a heavy thunder-shower bursts upon the people. The white-heat enthusiasm of the

French, however, outlasted the storm. The utter abandon of the Frenchmen is indescribable. The government had placed military bands everywhere, and scores of out-door concerts were given. All the operas and theatres were free; "first come, first served." What contrasts were seen in the finest opera house and theatres in the world! Shirt sleeves and blouse, calico dresses and caps, crowded the accustomed places of silks, satins, and diamonds.

For once the struggling poor had a good time. Every jingling song was heartily encored, once, twice, or thrice, and the happy audience, frantic with enthusiasm, joined in the choruses. Singers and actors were delighted with listeners so fully in sympathy. The balls, too, were conducted on a gigantic scale, over two thousand being held in the city; many outdoors on the asphalt pavement, a souvenir of the Revolutionary dance on the site of the destroyed Bastile.

The most brilliant ball took place at the Place de la Bourse. Women were draped in the tricolour, and men wore the costumes of ninety years ago. Vast ballrooms were formed at the intersection of the wide avenues in the central markets, which were decked with evergreens. Here thousands of market-women, who during the Commune loyally fought with the National Guard, wore green cockades in their caps, and danced till sunrise. Enthusiastic students

sang the Marseillaise and Chant du Départ, shouted themselves hoarse, and were the last in bed.

We wondered continually at the general good order and light humour of everybody in attendance. It is true that the authorities had used appeals, which caught the popular ear, such as follow. "In the midst of your patriotic joys to-day, don't forget that the eyes of Provincial France are fixed on Paris." "Parisians must not forget the grandeur of the date they celebrate. Ninety years ago your fathers won a heritage of freedom, which we must transmit with untarnished glory to the rising generation."

A VISIT TO THE WORLD'S COLUMBIAN
EXPOSITION, CHICAGO

A VISIT TO THE WORLD'S COLUMBIAN EXPOSITION, CHICAGO.

WE are largely indebted to both France and England for "World Fairs." For more than a century big shows, or fairs, have been a favourite feature with the French people. In 1761 the English Society of Arts originated and promoted in London a National Exposition of machinery and other objects of interest, promising "to keep spies at a safe distance, and that no drawings should be made of the premises." This little mechanical fair was followed at London, in 1851, by the first International Exposition, which was suggested and promoted by Prince Albert. It was held in the Crystal Palace in Hyde Park, and opened by Queen Victoria. This fair proved a great financial success, and in 1853 was imitated in the city of New York.

The French, quick to seize upon good ideas, in fifty years held at Paris ten national fairs. Napoleon was an enthusiastic promoter of "trade displays." Talleyrand also saw that these displays would win glory for the French people. The wonderful International Expositions that followed those

of 1851 and 1862, in London, of 1855, 1867, 1878, 1889, and 1900, in Paris, helped to make London and Paris the greatest industrial centres on the globe. A deficit of \$7,500,000 for the Universal Exposition, held in Paris in 1878, did not lessen the interest of France in the value of expositions.

A crowning triumph of European expositions was held in Paris in 1889, to commemorate the French Revolution of 1789. The total space occupied was 173 acres. Total exhibitors, fifty-five thousand. Total gain in money for the season to Paris is estimated at over a hundred million dollars. The Republic of France, in 1889, outshone the Empire in 1867. In 1873 an International Exposition was held in the famous Prater of Vienna. The gross expenditures were \$9,860,000; the receipts were only about \$2,000,000. In 1876 the Centennial Exposition was held at Philadelphia, and was promoted largely by Quaker City capital.

"The World's Columbian Fair," the wonderful celebration at Chicago of the four hundredth anniversary of the discovery of America, was a worthy commemorative service, in which the world heartily joined. A continent was discovered which embraced an area equal to about one-third of the globe's entire acreage of land. The discovery to-day of men and women, either like or unlike ourselves, on our neighbouring planets, Mars or Jupiter, would not more

quicken the pulse of civilization than it was quickened four centuries ago by that accidental feat of Columbus on October 12, 1492.

In the Aladdin-like "White City," on the shore of Lake Michigan, the "American Adriatic," the highest aspirations of the human soul seemed satisfied. For a brief period in the summer of 1893, and with Columbus for patron saint, all nationality, creed, and sex were harmoniously blended in ideal skill, beauty, and grandeur.

But the name Columbian becomes a farce, if for a moment we listen to the recent claim that Jean Cousin, sea captain of Dieppe, discovered the river Amazon in 1488, four years prior to the discovery by Columbus of San Salvador in 1492, so we dismiss the doubt.

Before we walk the dreamlike, magical "White City," we turn a few pages of Columbus's eventful life. Genoa the "Superb" is a famous fortified seaport city of Northern Italy. The city is crescent-shaped, and beautiful as seen from the Mediterranean; white houses, imposing churches, marble palaces, and picturesque villas occupy sheltering ground that gradually rises from the shore. Genoa, older than Rome, rival of Pisa and Venice, and mother of colonies, honours herself to-day in claiming Columbus as her child. Near the railway station stands a fine statue to his memory.

About 1433, without the gates of the city, Columbus was born. His father was a wool carder. When a child, Columbus loved the sea, and in Pavia, "City of an Hundred Towers," he studied how to navigate it. When fourteen years of age he joined relatives in a naval descent upon wealthy Naples. In another expedition, while fighting to capture richly-laden Venetian galleys, a sudden fire aboard ship forced Columbus to swim ashore. Thence he proceeded to Lisbon. Though he lost a prize on the sea, he soon found an unexpected one on the land. While attending service at All Saints Chapel, he met, and later married, Dora Felipa. The making and selling of maps and charts became his business. At Lisbon the spirit of discovery captured the soul of Christopher Columbus. He believed the earth was round, and conceived the design of finding a western route to Asia. King John II., of Portugal, and both the Republics of Genoa and Venice refused him much-needed assistance. Years dragged along in his fruitless efforts to enlist aid for his daring scheme.

Finally, when fifty years old, Columbus decided to lay his plans before Ferdinand and Isabella. The marriage in 1469 of Ferdinand of Aragon and Isabella of Castile proved to be the turning-point, not only in the history of Spain, but in the discovery of a new world. The noble manner of Columbus won the friendship of Alonzo de Quintanilla, comptroller

of the treasury, also the favour of the Grand Cardinal of Spain; but he failed, though he pleaded earnestly, before the Council of learned professors and friars at Salamanca. Lactantius was quoted to him, "Is there any one so foolish as to believe that there are antipodes with their feet opposite to ours, people who walk with their feet upward and their heads hanging down? That there is a part of the world in which all things are topsy-turvy; where the trees grow with their branches downward, and where it rains, hails, and snows upwards?" Later, other wise men in royal council at Seville reported to Ferdinand that "the new world scheme was impossible."

Columbus, now poor and forsaken, accompanied only by his little son Diego, started on foot to seek his brother-in-law at Huelva. When half a league from the seaport of Palos, he stops at the gate of Santa Maria de la Rabida, a Franciscan convent, half-hidden in pines, to beg bread and water for his hungry child. The grandeur of Columbus's plans soon arrested the attention of Friar Juan Perez de Marchena, and Columbus was assigned a room in the convent. A monument to Perez should be built in Washington by Americans.

Several conferences were held with the enterprising inhabitants of Palos, including Martin Alonso Pinzon, head of a wealthy family of navigators.

Perez, once confessor to Isabella, and now confirmed in his faith in the new route to India, wrote the queen, who sent Columbus money, and requested a visit. Astride of a mule Columbus starts out for the royal court of Granada, where on his arrival he witnessed Boabdil, last of the Moorish kings, deliver the keys to Spanish authority. After eight hundred years of terrible loss of men and money, the crescent yielded to the cross emblazoned on the proud standards of Spain, which now floated from the highest towers of the Alhambra.

The terms of Columbus were considered exorbitant and rejected by the court. Columbus, disgusted by his treatment at court, again mounted his mule, and started for France, where he hoped for better success. He had proceeded but two leagues from Granada, when a courier overtook him at the bridge of Pines, and informed him that Isabella, as Queen of Castile, would assume the cost of his expedition. Isabella said, "I will pledge my jewels to raise the necessary funds." Isabella's proudest moment, for she now becomes the patroness of the discovery of the new world. Happy man, Columbus! After eighteen years of poverty, neglect, and ridicule, the prime of life wasted, at last he is on the verge of success. Mayflowers fringed the roadway, as Columbus, with high hopes, hastened to Palos with royal orders for the fitting out the long-deferred expedition, which

was to consist of three small and frail caravels, — the last journey from this world to the other life, the people of Palos thought.

Early on Friday, August 3, 1492, Father Perez blessed Columbus and his men, and the brave expedition sailed out from Palos on unknown waters. Columbus displayed on the *Santa Maria* a banner with the image of Christ crucified, and the Pinzon brothers commanded the *Pinta* and *Nina*. From the Canary Islands the little fleet steered due west. The bold, trustful spirit of Columbus was equal to the situation. Neither waves mountain high, nor impatient mutinous crew, neither defective compass, nor fears could compel him to retrace his steps. Columbus sailed from Spain on Friday, and on Friday Oct. 12, 1492, sixty-eight days after leaving Spain, he sighted the new world, and reentered the port of Palos on Friday.

Early in the day the discoverer, dressed in rich scarlet, and accompanied by the Pinzon brothers, entered their small boats. Columbus was the first to land. Kneeling, he thrice kissed the blessed ground, and in tears offered grateful prayer, drew his sword, displayed the royal standard, and took possession of the first land sighted, as San Salvador, in the name of the Castilian monarchs. It was the tiny *Nina* that carried back word of a new world discovered, to Ferdinand and Isabella, and later all the people and bells

of Spain and Portugal gave Columbus a royal welcome.

In 1892 facsimiles of the *Santa Maria*, *Pinta*, and *Nina* were constructed in Spain. Clearance papers were from Palos, and their destination was, not San Salvador, but New York, metropolis of the New World. The frail ships are Spanish caravels of life in 1893 as in 1493. Their mission is to emphasize and honour the mighty feat of Spain's most honoured citizen. Behold the quaint decks, cabins, and fore-castles! We feel the favourable breezes that again waft across the sea the spirit of Columbus. We forget the four centuries past, and believe ourselves enrolled in his bold expedition as veritable New World adventurers. A realistic and happy thought, to rebuild the *Santa Maria*, *Pinta*, and *Nina*, and bring Columbus in triumph as America's patron saint to the White City of the New West!

We follow in the wake of the caravels to Chicago. We engage quarters at the Auditorium, which covers an acre and a half of ground, and fronts on Michigan Avenue and Clark Street, and is ten stories high, with tower of eighteen stories, that overlooks the blue lake; a superb hotel and playhouse combined, one of the finest in America. It is built of granite and steel at a cost of over three million dollars. Gigantic neighbouring buildings astonish us: the "Old Colony," "Monadnock," "Woman's Temple,"

and "Masonic Temple," the last twenty stories in height. Chicago architects have evoked a new style called the "Chicagoesque." They have risen to a high plane of constructive knowledge. This Phoenix city is one of the best built in the world. Chicago, with her population of nearly two million, is thoroughly cosmopolitan. She is the second city in the Union, sixth in the world, and truly the eighth wonder, — built almost in a day. Fifty years ago Chicago was a hamlet in a marsh; to-day she is the rival of New York, and one of the grandest inland cities on the globe. Her system of boulevards and parks is unsurpassed. Chicago has twenty-six lines of railway, and is the greatest railroad centre in America. On October 8-10, 1871, Chicago lost by fire 17,450 buildings, valued at \$200,000,000. Since 1876 she has built eighty thousand buildings, and now covers about two hundred square miles, — even more than London. The arrivals and clearances of her vessels are fifty per cent. greater than at New York. Truly, the great wonder at the world's Fair is Chicago herself. We now turn our back upon this colossal city, and proceed to the "White City" by the only proper route, viz.: via Lake Michigan, as all other approaches are back-door entrances.

We select a whaleback, or "pig-nose," as some irreverently call the *Christopher Columbus*, the largest

and most unique passenger steamer in the world. As we steamed out from the dock crowded with people, a dense black smoke drifted over the harbour, enveloping us in darkness, and we fell asleep, and dreamed that an aluminum electrical air-ship bore us, swift as thought, to another planet, where intelligence and beauty reigned, to a white city, a veritable paradise abounding in graceful structures, that sheltered a wondrous people, and their skill,— tall towers, beautiful domes, grand arches and columns, with lawns and flowers, that would have thrilled a Grecian heart. Servitude of man and beast seemed abolished. Myriads of people, with faces all aglow, thronged the shady streets. When the sun faded a new light pervaded this matchless city, revealing architectural splendours, happy men, women, and children, all fittingly clothed. Everywhere, on avenue, plaza, and bridge, a mighty throng. Sparkling fountains were of rainbow hue, and the tiny blue lakes were alive with electrical launches and pretty gondolas; the music was tender and patriotic. It filled the hearts of all with joy as they moved in sight of the Goddess of Liberty and Progress. This our dream, till peals of thunder aroused us, and again we felt the vessel's deck beneath our feet. Suddenly we saw "The White City," or World's Fair, and were told that, while bankers slept, ambitious architects had helped themselves to gold and silver, and were

thus able to express in material what others had built in dreams only.

The study of a map of the "White City" reveals the location and scheme of the World's Fair. This beautiful location of the World's Columbian Fair, with a frontage of two miles on lovely Lake Michigan, is at Jackson Park, with a land and water area of a thousand acres. Here the early "\$5,000,000 Exposition" grew like magic into a World's Columbian Fair, costing over \$30,000,000, and sheltering a hundred million dollars' worth of exhibits. Millions were expended for piers, roads, bridges, water-supply and sewerage, landscape gardening, administration, operating, and other expenses. And millions more were spent for main buildings.

We land at Columbia Pier. Our journey will be as follows: South to the Convent, Forestry and Agricultural Buildings, and other objects of interest grouped about the South Pond, thence north along the lake shore to the Naval Exhibit, the United States Government Building, the Fisheries, Art, State, and Woman's Buildings grouped around the North Pond. Thence to the Midway Plaisance. Returning, we shall visit Horticultural and Transportation Buildings lying west of Woody Island. South of the island are located the buildings for Mines, Electricity, and Machinery. Finally, we shall enter the mammoth Manufacturers' and Liberal

Arts Building, and end the journey at an electrical fête in the Court of Honour, at the west end of which stands the Columbian Fountain, at the east end the golden statue of Liberty.

On board ship are twenty-five hundred fellow passengers, delegates from every State and all nations. We search our pockets for the open sesame, the necessary half-dollar. How eager the throng to enter the "White City" — earth's paradise!

The Peristyle, or Grecian Colonnade is a noble gateway as seen from the great landing pier of the exposition. No city, ancient or modern, ever had portal so grand. On the right is seen the white Music Hall, with stage for thirty-five hundred singers, on the left stands the Casino for public comfort. These three structures, with a lake frontage of 830 feet, flanked by the Agricultural and Manufacturers' Buildings, excite admiration, and the sun adds a silver tinge to the ninety-six stately columns, and scores of heroic statues. The central arch supports an architectural group representing Columbus in triumphal fête on his first return from the discovery of the New World.

Turning to the left, we rap at the door of the Convent Santa Maria de la Rabida. This is a \$25,000 reproduction, with the quaint walls and red roof of the middle ages, of the identical convent in Spain where Columbus, disheartened, found shelter and en-

couragement at the hands of kind-hearted Father Perez, and begged a pittance for his hungry child.

"La Rabida is the corner-stone of American history." Mr W. E. Curtis, with most commendable energy, concentrated here, from the archives of Europe and elsewhere, priceless relics and historical papers of Columbus, including the original contract with Ferdinand and Isabella; also books, manuscripts, maps, and eighty portraits; a life history of Columbus, together with a model or photograph of nearly every monument or statue erected to his memory.

We look upon pictures of Columbus not unlike the face of Washington. He served his Majesties with as much zeal as if it had been to gain paradise. Finally, the death of Isabella proved a fatal blow. Columbus now about seventy, ill and poor, and almost forgotten, died on May 20, 1506, at Valladolid, Spain. His last words were, "Into thy hands, O Lord, I commend my spirit."

It is believed by some that the remains of this celebrated and extraordinary man, Don Christopher Columbus, are still in the cathedral at Santo Domingo. In 1893, however, his spirit must have hovered lovingly over the White City built to his honour. For centuries to come the story of Columbus's faith, perseverance, courage, and success will continue to be an inspiration.

An item in the newspaper reads as follows :

" CADIZ, Jan. 17, 1899. The casket containing the supposed remains of Christopher Columbus, which arrived here yesterday on the Spanish cruiser *Conde de Venadito*, was opened to-day. Thirty bones and some ashes were found in it. It was reclosed, and will be taken to Seville to be deposited in the cathedral there."

The Columbus casket was removed on September 26th (1898) from the sarcophagus in the Cathedral of Havana and taken on board the *Conde de Venadito*, which sailed for Spain on Dec. 12th. According to the Spaniards, the remains of Columbus have rested in the Cathedral of Havana since January 19, 1796, having been brought there from Santo Domingo after that island had been ceded to France by Spain.

A formal parade occurred in Chicago on October 12, 1892. Bands of music, soldiers, citizens, water, foliage, domes, blue sky, all make an inspiring picture. October 12, 1892, was Dedication Day of the Columbian Exposition. A million enthusiastic Americans witnessed the civic and military procession as it passed within the World's Fair Grounds, and entered the mammoth Manufacturers' and Liberal Arts Building, the largest of the kind ever erected. Its length was 1,687 feet ; its width, 787 feet. The cost was \$1,500,000. The floor contained three million feet of lumber, and five carloads of nails. The floor space equalled forty-four acres. What an

array of arches and columns! how elaborate the ornamentations of female figures, symbolic of the various arts and sciences!

An address was delivered in the Manufacturers' and Liberal Arts Building, by Hon. Levi P. Morton, Vice-President of the United States. Its dedication was to the use of humanity in the presence of two hundred thousand people, a mighty host that suggested the great gathering at the Judgment. There sat Justices of the United States Supreme Court, members of President Harrison's Cabinet and of Congress, governors of States, with their staffs, and representatives of foreign nations. Words grateful and eloquent were spoken, a patriotic ode was recited, and four thousand voices sang praises to Jehovah. The fair, however, was not ready for its formal opening to the public until May 1, 1893.

The "Palace of Agriculture," facing the Grand Basin, is considered by many the most beautiful structure of the White City. Its design is bold and heroic. Mammoth arches and Corinthian pillars flank the main entrance. Its length is eight hundred feet, its width five hundred feet, yielding a floor space of nineteen acres, and it cost \$618,000.

At each corner are attractive pavilions, whose domes support groups of figures, typical of the four races of men, that sustain a globe. Martiny's work is of exceptional beauty, — statues called "Signs of

the Zodiac," "Ceres," "Four Seasons," "Abundance," and "Agriculture." With great skill the artist has included in his decorative work the maize, potato, and tobacco. The lofty frieze includes the turkey, which some think would have been more emblematical of America than the eagle. Diana, Italian divinity and Goddess of Light, so necessary in agriculture, surmounts the central dome. The main entrance pavilion is 144 feet square. Vestibule and rotunda are made beautiful with painting, statuary, and coloured glass, — worthy portal to such a palace.

We enter the vast interior. All countries and States make their offerings to this gigantic cornucopia. Most exhibits are sheltered in pretty pavilions, temples, and kiosks that line avenues, north, south, east, and west. Some of these booths of costly woods have glass tubes filled with grains, costing \$10,000 each, choice tobacco from Cuba, Virginia, and Kentucky, coffee from Brazil, palm oils from Liberia, silks, teas, and bamboos from Japan, spices from Ceylon, beer from Germany, whiskies from Ireland and Scotland, wools from Australia, rare wines and oils from Italy and France, Cheddar cheese from England, sugar, cotton, and rice from Southern States, sub-tropical fruits from Florida, maple sugar and honey from Vermont and Minnesota, packing companies' displays from Kansas,

and from Cape of Good Hope Colony ivory, diamonds, and ostriches. There are acres of agricultural implements, mowers, reapers, and twine-binders in silver and gold plate. You wonder at a model of the first reaper made by the Gauls eighteen hundred years ago. To-day Chicago has one company, whose buildings cover fifty acres, and which employs thirty-five hundred men, that make six hundred machines per day, or one complete agricultural machine for every minute of every working day the year round.

Agriculture now has a seat in the President's Cabinet, and agricultural colleges all over America have trained scientists and educators at their head, seeking to advance this great industry to a foremost place for mankind. How great the advance in the science of draining and of the successful breeding of live stock! What interest the people take in farmers' institutes and experimental stations, in tree planting, in irrigation, and in the production of sugar from sorghum, and the sugar beet! No wonder, when busy men tire of other things, that nature never fails to interest.

It was Hon. J. G. Blaine, I think, who said: "The farmers of the republic will control its destiny. Agriculture, commerce, and manufactures are the three pursuits that enrich a nation, but the greatest of these is agriculture, for without its products the spindle cannot turn, and the ship will not sail.

Agriculture furnishes the conservative element in society, and in the end is the guiding, restraining, controlling force in government. Against storms of popular fury; against frenzied madness that seeks collision with established order; against theories of administration that have drenched other lands in blood; against the spirit of anarchy that would sweep away the landmarks and safeguards of Christian society and republican government, the farmers of the United States will stand as the shield and bulwark, themselves the willing subjects of the law, and therefore its safest and strongest administrators."

The Herr Krupp 134-ton gun is eighty-seven feet long, and in 1893 the largest cannon ever made, and it is said to have cost \$475,000. Our own forty-five-foot guns, in comparison, seem like toys. Yet American guns excel in rapid firing. The bore of the Krupp gun is twenty-five inches, seven hundred pounds of powder are required for a charge, and the projectile weighs twenty-six hundred pounds, and its range is fifteen miles. The cost of a single round is \$1,250. The carriage and frame weigh fifty tons. German engineers seriously assert that the concussion of this monster gun would wreck the White City. It was generous in Herr Krupp even to think of presenting his 134-ton gun to our government, for the defence of the great port of Chicago. Now we make equally good or better guns in America.

Had we time to examine the leather exhibit, we should see the riding-boots of Napoleon, and of Russia's dreaded Ivan the Terrible. North of the Indian School exhibit, where the savage red man sits wrapped in his blanket, and his child clothed in the dress of civilization, we come upon the Forestry Building, designed by Mrs. C. B. Lockwood. It is a unique structure. Its exterior reveals its purpose, viz., to exhibit forest wealth. Its treatment is rustic, not a nail being used in its construction. These columns are tree-trunks of many varieties, and each tree bears a label with name. The walls are of slabs, and the roof is thatched with bark. From flagstuffs float standards of States and nations, whence the different woods came. The main vestibule is of polished cypress and yellow pine. Its cost was \$10,000.

Inside one sees manzanita, ebony, and beautiful woods from Mexico, ornamental woods from Spain and Cuba, strange woods from India, dyewoods from Paraguay and elsewhere. Washington, Oregon, and California excel in pines, firs, cedars, and redwoods. Gigantic cottonwoods come from Missouri, black walnut logs are from Kansas, and white oak from Kentucky. Hundreds of species and varieties of wood were smoothed and oiled in natural colours. Many pieces polished show wonderful natural grain-ing, such as mahogany, blood-wood, juniper, spruce,

laurel, myrtle, and vegetable ivory, a slab off a mulberry-tree which Shakespeare planted, mosses, seeds, gums, and valuable wood fibres, and countless more of exhibits had we time to mention them. The Dakotas' exhibits prove what wonders artificial tree planting will accomplish.

Wise laws should be enacted that will preserve and increase the forest wealth of America.

The Alaskan Village calls to mind the purchase from Russia, in 1869, of Alaska by Secretary Wm. H. Seward for \$7,000,000. Before us is an Alaskan village with group of totem poles. Upon these tree-trunks are carved grotesque figures of the bear, crow, frog, and other creatures and birds, from which families take their clan names, suggesting the "coat-of-arms" so prized by European aristocracy.

In the building devoted to anthropology, or man and his work, the exhibits were very curious and comprehensive. Here one can study man. In the gallery stood a gigantic reproduction of the mastodon, ten and one-half feet high by fourteen feet long. This recalled the skeletons seen by the writer in the museum at St. Petersburg, Russia.

How weird the ruins of Yucatan, how interesting the art and civilization of the Aztecs! You can study the hordes which Columbus dispossessed, and the semi-barbaric tribes since his day.

Professor Putman thinks that man lived in the

Tertiary period fifteen thousand years ago. Here, before you, may pass in review five hundred generations of men, who sought in America enlargement of mind and opportunity thousands of years before the Pyramids were built, and ages before the Norsemen sailed westward.

The many windmills on the South Pond mark in the White City a locality crowded with novelty. Here are windmills varying from the quaint old Holland type to the latest air motor. In a clumsy old Dutch mill rosy-checked maidens, in wooden shoes and gaudy aprons, serve the public with steaming hot cocoa.

The Kentucky log cabin and model working-man's home are in striking contrast. You see pit coal from Tonquin, rice of Cochin-China, bronze of Indo-China, and costumes of India that lend brilliant colouring to the ever-shifting scenes. Wandering among the cliff-dwellers of Battle Rock Mountains, Colorado, you instinctively look around for the treacherous Utes.

We stop to wonder at a sled load of pine logs, from Michigan, thirty thousand feet, — weight 150 tons, — all drawn by two horses. These logs were shipped to Chicago on seven flat-bottom cars. Of course the load won a first prize.

See the deputation of Iroquois Indians, in primitive artistic dress, and the classic Peristyle beyond.

What a chasm in intellectual achievement here presented, and what volumes of history mark the advance of the Greeks.

We come to the battle-ship *Illinois*, which is seemingly moored to a curved pier in the lake, north of the main building. This reproduction for the people inland was the happy thought of Commodore Meade. The *Illinois* is a full-size type of our 10,300-ton coast-line battle-ship, and similar to the *Massachusetts*, *Indiana*, and *Oregon* of the United States Navy. Here is shown the discipline, manner of living of officers and men; and here a display of gun and torpedo-boat and other drills such as is customary on a man-of-war.

A VISIT TO THE WORLD'S COLUMBIAN
EXPOSITION, CHICAGO
(Continued.)

A VISIT TO THE WORLD'S COLUMBIAN EXPOSITION, CHICAGO.

(Continued.)

VICTORIA HOUSE is the headquarters of Great Britain, a quaint, red structure, over which floats proudly "the flag that braved a thousand years the battle and the breeze." The skill and products of Great Britain are grandly represented in all the great buildings, from her art gallery to the live stock sheds.

Nearly a score of foreign governments erected special buildings in which to receive their friends. Foreign governments expended on their buildings and exhibits for the World's Fair nearly ten millions of money.

The German Government Building cost \$250,000 and is a combination of several styles, and yet the whole is not lacking in harmony. Bay-windows, projecting balconies and turrets, lend a picturesqueness not unlike the city halls in ancient German towns. Over its entrance is this characteristic German motto:

“Fruitful and powerful,
Full of corn and wine,
Full of strength and iron,
Tuneful and thoughtful,
I will praise thee
Fatherland mine.”

Like the German character, the structure is substantial, and, undisturbed, would last for centuries. The exhibits within are rich and curious. The total number of German exhibits in all the various departments of the fair is five thousand, and they come from 250 cities and towns. They range from the Krupp Gun Company's exhibit to dainty hose and gloves.

Retracing our steps southward a little, we approach the Swedish Building. It was constructed in Sweden, and removed to Chicago. The style resembles some of the old Swedish churches and gentlemen's houses of the sixteenth and seventeenth centuries. Most of the walls and roofs are covered with shingles. Inside decorations are light colours, bunting, coats-of-arms and crests. Also are seen famous Swedish iron, house furniture, a peasant's cottage, wax figures, and the bust of brave Gustavus Adolphus II.

We stop at the United States Government Building, which is classic in design, and built of brick, iron, and glass at a cost of \$325,000. It overlooks Lake Michigan on the east, and the main lagoon on the

west. The central dome, with its beautiful decorations, is 120 feet in diameter, and is its leading architectural feature. On the Plaza, government troops are drilled. A million dollars was expended on the wonderful exhibits within, and visitors are amazed at their variety and richness. Here the people can examine in detail the workings of the government, including the Treasury, the State, the Navy, the War, and the Post-office Departments, also many exhibits from the Smithsonian Institute.

We see an Indian mother and her children. Everywhere, varying in type, hang canoes, hollowed out of solid trunks of trees, and boats made of walrus hide and other materials. The patent office exhibits models of crude inventions, and intervening links that join to the latest improvements. Thus you are able to see the old-fashioned spinning-wheel with its single spindle, and near by the modern spinning-jenny with its one thousand spindles, all in motion. The geological specimens are beautiful. In the Post-office Department is shown every variety of stamps, and every method of mail carrying, — on snow-shoes, on horseback, by dog sledge, or in the limited mail, and by city carrier. Of course the War Department exhibit abounds in old Continental, Mexican and Civil War equipments, in modern steel guns, and in big mortars. Here you can also study the slow development of the old flint-

lock and muzzle-loader into the latest magazine or repeating rifle.

Across the bridge we go to the Fisheries Building, an "architectural poem," as it was called. The design is Spanish Romanesque, and Mr. Henry Ives Cobb was the architect. Fish and marine forms naturally suggest the details of ornamentation. The roofs are of glazed Spanish tiles, and the general colouring is soft and pleasing. It cost one quarter of a million dollars. A large central structure and two circular buildings are connected by arcades. In one of the wings is a complete angling exhibit, and in the other is an extensive aquaria. In the former you see fishing-tackle that would delight any disciple of quaint old Isaak Walton, — bambo rods, reels, silk lines, hooks, and deceptive flies.

Every day the aquarium is thronged with adults and delighted boys and girls. On the right and left are great tanks with glass fronts, in which fish are exhibited, from ocean, sea, lake, and river. Part of the tanks have salt water, and part fresh water, and all are supplied from large reservoirs. The tanks are also supplied with rocks, sand mosses, lichens, reeds, and aquatic plants; and from clefts and crevices in the rocks, crystal streams of water gush forth, and keep the tanks full and fresh. You shrink from live sharks and the devil-fish, that dart toward you; you recognize the striped bass, the pickerel, and

shad, and admire the speckled trout, the graylings, and the well-fed perch. How curious are the crawling sea-lizards, the clumsy turtles, the water-dogs and the porcupine-fish. For the first time, perhaps, you see pompanos, red snappers, and croakers from the south, and you wonder at the strange life in the deep sea, and in the grottos, the sponges, the sea-anemones, and the coral animal, builder of islands and continents, but you look in vain for a live whale. In fact, you almost wish you had fins, and that you could explore the mysteries of the vast oceans.

The central building is devoted to the product of the fisheries. Everywhere are boats, nets, spears, and you learn much as to curing and packing fish. The take of codfish in Norway in three months has been fifty million, and forty thousand or more men are employed.

For a change we are glad to seek the Art Building in Venetian gondolas, laden with pretty women and happy children. Few, if any, World's Fair buildings have been more praised. Its style is chaste Ionic, and its colour is a cool gray.

Electrical launches also are loaded with visitors; we approach over wide steps the south main portal, which is flanked with beautiful terraces and balustrades. Crowds of well-dressed people are constantly going and coming. A great nave and transept intersect this oblong building (320 x 500), and above all

is a dome surmounted by Martiny's winged figure of "Fame," or "Victory." Its two annexes are for the overflow of exhibits. Its construction is fireproof, the window panes even being set in iron frames. Outside, galleries forty feet wide form continuous promenades around the entire structure. The north side of the Art Building faces an open lawn and a group of fine State buildings. The whole cost was \$670,000.

The interior of the Art Building is lighted from the roof, and the courts and rotunda are devoted to sculpture and architecture. A hundred or more galleries are devoted to paintings in oil, in water-colour, on ivory, enamel, metal, porcelain, etc. Several rooms abound in engravings, etchings, prints, drawings in chalk, charcoal and, pastel, engravings in medallions, gems and cameos. There are also many exhibits of valuable private collections.

Never in America under a single roof has there been so comprehensive and brilliant a showing of modern works of art. Pictures and statues are the highest degree of artistic merit, and the whole grand exhibit is bewildering. The American exhibit numbers over a thousand paintings. New York alone sends five hundred pictures. The value of the English collection is estimated at \$1,000,000. The German section has 580 paintings. Pazmady's microscopic paintings are very interesting. "The Land-

ing of Columbus" is only half an inch square, and yet it contains seventeen human figures, a boat, sea, landscape, etc.

A convenient catalogue would hardly suffice to name the vast collections of French paintings and sculpture. In art the French lay claim to the title of successors to the ancient Greeks. Years are needed to fully absorb the lessons taught in the grand collections from Austria, Russia, Italy, Holland, Denmark, Japan, and other countries. Invaluable lessons in skill and art are being rapidly taught to the great Northwest, and America will be lifted to a more exalted enjoyment and nobler life.

The Café de Marine is a French timbered Gothic building, very picturesque, with four round and four square towers, and steep roof. Here, for a moderate price, can be obtained a good meal of shell-fish, poultry, game, or meats, and yet the chronic grumbler and wit said that he was not able to make a square meal of the round steak served.

The State buildings are located north of the Art Building. First we visit the Virginia Building, which is a restored home of Washington at Mt. Vernon, where he lived and died. The two-story portico is nearly one hundred feet in length, and furnished with settees. Within are twenty-five rooms, antique sofas, and pictures of the last century. Most of the things are heirlooms of Virginia families. The attend-

ants are old Virginia negroes. Here is the Washington family clock, and the original and last will of the "Father of his Country," a rare collection of the Colonial period and Revolutionary War. The library is furnished with books written mostly by Virginians.

Facing the Art Building is the Pennsylvania structure. It is fitting for the Quaker State to have chosen for its World's Fair home a building Colonial in style, and surmounted with the historical clock-tower of old Independence Hall. This building, like other State club-houses, includes beautiful offices for the State Executive Committee, reception, and exhibition rooms. William Penn and Benjamin Franklin, in heroic statues, greet you with old-fashioned hospitality. The grandest relic of all is the old Liberty Bell, whose tocsin, on July 4, 1776, proclaimed to all the birth of a new republic. Its inscription reads, "Proclaim liberty throughout the land unto all the inhabitants thereof." Leviticus, Chapter xxv., and tenth verse.

Adjoining is the palatial Massachusetts Building, a reproduction of the Colonial and historical residence of John Hancock, which stood on Beacon Hill, Boston, near the State Capitol. Above the cupola is a flagstaff, with a gilded codfish for its weather-vane, a reference doubtless to the "codfish aristocracy," or to the times when codfishing along the New England coast brought wealth to many families.

The New York Building is a reproduction, with slight alteration, of the old Van Rensselaer residence. In the niches are statues, and busts of Columbus, Hudson, and others. Within the rooms exquisitely furnished are a post, telegraph, and other offices. An elevator takes visitors to the terraced roof-garden above, which is enriched by terra-cotta pots, palms, and shrubs, and lighted by electricity.

New York appropriated \$600,000 to defray the expenses of her exhibits and building. The rivalry to secure the location of the World's Fair was very keen, but this beautiful building of New York helps to bury the hatchet, and does honour to the old Empire State.

The Missouri Building is large and graceful in outline. Its auditorium seats twenty-five hundred people. Its reception-rooms were crowded. Missouri is one of the largest and richest States in the Union. Her exhibits are unexcelled in mining, agriculture, education, etc. South Missouri is "the land of big red apples," also of wild grasses, and, by adoption, the home of the succulent blue grass. In buried mineral treasure, it is one of the "strong boxes" of the world, as in agriculture it is a garden spot. In the summer it is the land of growing crops, mountain air, and most delightful zephyrs; in the fall, of rich harvests, of luscious fruits, and native nuts; in the winter, of fat herds, full tables,

and warm firesides; but in the spring — bright, sunny spring — it is the land of fallow ground and happy, whistling ploughboys, the home of sweet crab-apple blossoms, of honeysuckles, sweet violets, roses, singing birds, and murmuring brooks.

Florida reproduced for her headquarters the oldest structure in America, — old Fort Marion of St. Augustine.

How striking in contrast the Iowa Building. It is beyond the North Pond by the lake, a most charming location. Its interior has the odour of the soil and of crops. Iowa produces \$365,000,000, more or less, of farm products every year. The corn crop has reached 322,000,000 bushels; wheat, 37,000,000; oats, 80,000,000; potatoes, 20,000,000.

The noble buildings of the thirty or more States and Territories are grouped in the northern part of Jackson Park, and largely stand on Fifty-sixth and Fifty-seventh Streets, projected easterly across the fair grounds. Most States and Territories joined heartily in making the World's Columbian Fair worthy of their patron saint, Columbus, and of the foremost republic in the world. They contributed nearly \$6,000,000. We continue our visit to these graceful structures, as unlike each other as the main buildings are harmonious.

Next we study the California Building, which is a close imitation of the old mission at Santa Barbara,

with enough of ornate Moorish to remove the somewhat sombre effect of the old Jesuit mission. The building is 435 feet long, with dome and four towers, in which hang a few old Spanish bells. A roof-garden heightens its beauty and enjoyment. Here the "Italy of America" has duplicated her exhibits. California excels in fruits, wines, and precious minerals.

Finally we reach the Washington Building, which is very unique and pretty, and cost \$50,000. Washington is one of the youngest of the Northwestern States. She contributed largely to all departments, but especially emphasizes her marvellous lumber supply on Puget Sound. The largest logs used in the foundation of her home are fifty-two inches in diameter and 120 feet long. Larger timber grows, but railroad companies were unable to bring it. The roof is of famous Washington cedar shingles. Within are ores, coal, and granite, — exhibits that go to prove that Washington is the Pennsylvania of the Pacific Coast. Its chief novelty is a typical Western farm. In miniature is shown a farmhouse, barns, fields of growing grain, tiny gang-ploughs in furrows, binders, threshers, running brooks, live stock, fowls, etc.

We now reach the Colorado Building, which is Spanish Renaissance in style, with double tower. The red-tiled roofs give a picturesque effect, and within are fine displays of vegetables, fruits, and

native woods. Here is also seen Powers's famous statue, "The Last of His Race," which was bought for \$10,000 by the women of Colorado. This State excels in the production of precious metals.

The great States of Michigan, Wisconsin, Minnesota, Indiana, and the Dakotas have Fair homes worthy of an intelligent and prosperous people.

Finally we come to the Fifty-seventh Street entrance on Stoney Island Avenue. There are a score of entrances on the three sides of Jackson Park, also 326 turnstiles and 172 exits. The entrance gates are novel, and operated by the insertion of a ticket, which the machinery destroys while at the same time the visitor is registered. The total attendance at the Paris Fair of 1889 was fifteen million. The total attendance at the Columbian Fair, 1893, Chicago, was 27,500,000.

Seven hundred and sixteen thousand, eight hundred and eighty-one persons were present on "Chicago Day," fifty per cent. more than ever attended any other exposition on a single day. They were all well clothed and happy; nobody was intoxicated, and all were in good humour. The American people themselves formed one of the most satisfactory studies at the fair. October 9, 1893, was the twenty-second anniversary of the burning of Chicago (1871), when over seventeen thousand buildings were destroyed.

The Ohio Building was a bit of Italian Renaissance, a modest and chaste club-house, that was thoroughly enjoyed by thousands of Ohians and their friends. Near by stands the monument, by Col. Levi T. Scofield, of Cleveland, O., typifying the greatness of Ohio as a State. It was executed in bronze, and cost \$25,000. Grouped about the main shaft are life-size figures of Grant, Sherman, Sheridan, Garfield, Chase, Stanton, and other noble sons of Ohio, with the inscription beneath, "These Are My Jewels" (words spoken by the high-minded Cornelia, mother of the famous Gracchi).

The Illinois Building was constructed in the form of a Greek cross. The State, of which Chicago is the chief city, very naturally, as host, leads her sister States, both as regards her building and her exhibits. The State of Illinois generously contributed \$800,000 toward defraying the expenses of the World's Fair. Her State building cost \$250,000, and is a great exposition in itself, covering almost every department in the fair. The great dome made it a marked building, and at the main entrance is a draped figure, with arms outstretched, and the words, "Illinois Welcomes Nations and Sister States."

Beyond the North Pond we come to the Woman's noble building, designed by Miss Sophia G. Hayden, of Boston. The style is Italian Renaissance. The

groups of figures and the caryatides were also modelled by women. The interior decorations are very tasteful. Large mural paintings represented "Primitive Women" and "Modern Women."

The Woman's Building served as headquarters for women and their friends, also as a location in which to exhibit their own efforts in education, philanthropy, sociology, etc. Here also were studies of woman's work in factories, applied art, and invention. Beautiful collections of women's paintings adorn the walls of the main hall; and you examine with interest the relics of Queen Isabella, her portrait and jewels; also priceless laces of Queen Margherita of Italy, fine feather work from Mexico, and you covet a little painting of a queer, tiny Japanese baby.

We pay our respects to Mrs. Bertha Honore Palmer, president of the Board of Lady Managers of the Exposition. Mrs. Palmer, Southern born and educated, is accomplished, scholarly, and charitable. The success of the women at the World's Fair is largely due to Mrs. Palmer's rare tact and business talent.

What schoolboy has not heard of the Midway Plaisance? It is the connecting link between Washington and Jackson Parks. It is six hundred feet wide and about a mile in length, and located between Fifty-ninth and Sixtieth Streets. The Plaisance con-

tains eighty acres, and through the centre is a broad walk for visitors. The fifty cents admission ticket to the Exposition is also good for the Plaisance.

Here exists a confusion of tongues that rivals those of the Tower of Babel. Here you walk the streets of an Irish or German village, see the Austrians and Turks at home, surrounded by Alpine scenery, you enjoy the national drink made from pears, or you can descend the yawning pits of the Hawaiian volcano (Kilauea) till you are met with puffs of smoke and fierce flames; and then you can inspect St. Peter's at Rome, and the Temple of Luxor on the Nile, or perhaps you watch the wardance of the Dahomeys and the Amazonian belles, and at Hagenbeck's Menagerie you behold the trained lion on horseback, leopards dragging about a wagon, and an arena filled with savage animals that mingle and play together in peace and happiness. Mr. Carl Hagenbeck has fulfilled the Biblical prophecy, and caused the "lion to lie down with the lamb." Justly he is renowned as one of the most successful trainers of and dealers in wild animals.

One of the sights of the Plaisance is the Irish village. It possesses rare attractions for all natives of the Emerald Isle and their friends. Under the patronage of Lady Aberdeen and Mrs. Ernest Hart, historical gates, towers, and cottages were built,

where are illustrated to perfection Irish industrial life in the country districts. In the cottages are seen pretty Irish girls, some with black hair and blue eyes, making coloured linens, Irish and Kells laces; and near by are genuine bog-oak carvings and black-thorn sticks, and a "wishing chair" standing on a carpet of shamrocks growing in real Irish soil. The village blacksmith is kept busy making things of beauty out of iron rods. A picture of "Gladstone Bringing in the Home Rule Bill" appealed to all Irish hearts. For ten cents you may, if you can, kiss the "Blarney Stone," imbedded high in the parapet of Blarney Castle, and "become eloquent and witty, and prevail in love." From the castle staff floats the inspiring green flag.

The Ferris Wheel is one of the wonders of the fair, and is a worthy rival of the Eiffel Tower of Paris (1889). Its inventor is Mr. G. W. G. Ferris, a young engineer of Pittsburg (died 1896). The structure resembles a huge bicycle wheel hung between two steel towers, 137 feet in height. The axle is thirty-three inches in diameter, forty-five feet long, and weighs fifty-six tons, and cost \$35,000. Bars of steel hold together the two wheels, which are twenty-eight and a half feet apart. From trunnion-pins are suspended thirty-six passenger cars, which, when loaded, accommodate 2,160 passengers. Total weight of the great wheel is 4,300 tons. Two 1000-

horse-power engines give motion to the wheel. At night three thousand incandescent lights of various colours add a beautiful effect. Fifty cents admits you to a seat, and you are hurled 264 feet into the air for an outlook over Chicago, the Exposition grounds, and Lake Michigan. Visitors were given two turns of the wheel, doubtless on the principle that one good turn deserves another. The cost of this gigantic novelty was \$368,000. The Ferris Wheel while at the fair gave great pleasure, and proved a financial success. Not only did it pay all the cost, but for a time handsome profits. Finally, this wheel of wheels cost the owners a total outlay of \$1,000,000, and will eventually be sent to the scrap heap.

For a diversion let us seek the sights in "Old Vienna." On the south side of the Midway Plaisance is a reproduction of "Der Graben," or a portion of Vienna as it existed 150 years ago. There are thirty-six buildings, including banks, city hall, church, shops, etc., which surround a court or plaza. Here are sold all sorts of Viennese wares, pretty ivory, and leather goods, and lovely Viennese women serve Vienna coffee, bread and other delicacies.

Many visitors or sightseers are going in sedan-chairs to the Turkish villages. A Bagdad kiosk and other quaint structures on the street give a pleasing Oriental effect. The Shah's tent and silver

bed are seen, and Oriental wares abound. A hundred and more natives live in this quaint village, and the welcome call of the muezzin to prayer is daily heard from the lofty minaret of the mosque.

See how the Soudanese keep step to their strange music. The climax in the Midway occurs when all the nations are ordered out in review before the many elated visitors; but let us turn into a street in Cairo, — camels and riders in sight, and further on a series of interesting views of that mystic land, whose civilization antedates authentic history.

Here are Arabs, Africans, Egyptians, and Soudanese, etc., camels, donkeys, and the shrill cries of the donkey-boy; mosques and minarets, tents and temples, booths and bazaars, also balconies, wood carving and ivory inlaid doors, mosaics and richly gilded ceilings, all exactly as seen in Cairo. In the marts for sale are priceless jewels, scimitars and daggers, silks and shawls, dancing girls and conjurers, till the eyes grow weary. Everybody, however, understood the frequent sign, —

“Admissions 25 and 50 cents.”

Javanese dancers — some good and some bad! The Dahoman dancers are attired in their native costumes, and a hundred of these strange men and women are here from the west coast of Africa. They

give their peculiar dances, ceremonies, songs, chants, and war-cries.

A dime admits to see twenty ostriches from Southern California.

Further on a Chinese family attracts attention — young John Chinaman is carrying the baby, which teaches American husbands a valuable lesson. Why not admit the Chinese to citizenship the same as other foreigners? By and by we will earnestly covet trade with the 250,000,000 of Chinese, and the spirit of fairness with all nations should prevail. This family is going to the Chinese Theatre. Their joss-house, or house of worship, bazaar, restaurant, and teagarden are combined. The best dramatic talent and richest costumes have been secured direct from China. The joss-house contains grotesque idols, burning candles, and fragrant incense, part of the worship of the disciples of King-fu (Confucius), etc. Of course John enjoys his imported Chinese fruits, preserves, shark's fins, bird's-nest soup, and other homelike delicacies.

A VISIT TO THE WORLD'S COLUMBIAN
EXPOSITION, CHICAGO
(Concluded.)

A VISIT TO THE WORLD'S COLUMBIAN EXPOSITION, CHICAGO

(Concluded.)

THE Horticultural Building was another magnificent structure. Its size was 250 x 300 feet, and its cost \$225,000, with eight greenhouses, covering over five acres. The central pavilion was roofed in by a crystal dome 187 feet in diameter. The magnificent portal was a recessed vestibule decorated with statuary groups in each side, representing "The Sleep," and "The Awakening of Flowers."

Two hundred and eighty thousand Dutch bulbs were planted in the fall of 1892, and in May following myriads of gorgeous cups and bells appeared. Tulips and pansies were everywhere. Two shaded beds of velvet pansies contained 120,000 plants. Eighteen thousand orchids were on exhibition; many specimens from Mexico and Central America were still clinging to the original branch and bark. To mention the flowers on exhibition would recite the florists' catalogues. Most nations and States contributed lavishly. Every day brought a change in the indoor, outdoor, and cutflower exhibits. In

June the shrubs and plants were in their glory, hyacinths, carnations, roses, pink azalias perfuming the air ; sweet peas, clematis, geraniums and double begonias, a paradise of pattern and colour that delighted the senses. One of the novelties was a night-blooming cactus or cereus exhibition. The exhibition of cacti, or prickly plants, was extensive and fascinating. Within doors, Florida rivalled California with the fragrance of orange groves. Ripe fruit and red wine were everywhere.

On a miniature mountain are seen growing bamboos, choicest trees, and ferns, palms and oranges. Very attractive are the things below ground, where is a reproduction of one of the chambers of the mammoth Crystal Cave of the Black Hills of South Dakota, which has been explored for thirty-four miles ; its underground tunnels opening and closing into fourteen hundred rooms glittering with diamond-like stalagmites and stalactites.

East, and surrounded by the lagoon, is the Wooded Island. This beautiful retreat properly belongs to the Horticultural Department. Here are many acres of trees and fine shrubbery, relieved by ornamental plants, bright flowers, and pleasing perfumes. You thoroughly enjoy winding walks, encountering surprises at every turn—the Japanese Village, Davy Crockett's cabin, artistic structures with thatched roofs and climbing vines.

In the Paris Exposition of 1889 and 1900, a lavish use of tone and colour was employed to decorate the buildings; but in Chicago nearly every structure was of pure white. The possibilities of plaster, or "staff," in art are surprising. "Staff" is plaster of Paris, mixed in water with some cement and glycerine and dextrine, and various grasses. It was first employed at the Paris Exposition of 1878, and more extensively used at the Chicago Exposition in 1892.

Electricity is the motive power of the Intramural Railway, which is six and a quarter miles long, and nearly encircles the White City. The cost was \$700,000, and the fare ten cents. In the first car of each of the sixteen trains was a 133 horse-power motor, and each car had room for one hundred persons. The trip on the Intramural road, from the south loop to the north loop, on a fine day was delightful, and thousands of tired people enjoyed it.

The Columbia Rolling Chair Company furnished twenty-five hundred rolling chairs, which were freely patronised by the aged, the invalid, and the rich. Thus sightseeing at the fair became restful and possible for all. The price of the chairs, with or without attendants, varied from \$3 50 to \$8 per day. The administration seems to have provided for wants of every description.

Turning now to the Illinois Central Terminal. We learn that the Illinois Central Railroad has

spent \$3,000,000 elevating its road bed for the fair, and for future use. Its eight tracks during certain hours are given entirely to the World's Fair business. Three thousand new cars were added to its equipment. Every two and a half minutes, through cars leave the city at Van Buren Street, and in fifteen minutes bring you within the Exposition gates. Other desirable routes to the fair are the cable lines, an elevated railway, and that most luxurious ride with the Columbia Coach Company down Michigan, Grand, and Drexel Boulevards. In Chicago seven elegant terminal stations daily accommodate nearly a thousand passenger trains. For six months, from these stations vast numbers of professional men, school teachers, scientists, mechanics, farmers, and foreigners, with happy families, have been safely rushed to the Illinois Central Terminal in the rear of the Administration Building.

The Transportation Building is 250 feet in width, by 960 in length, and its cost was \$370,000. Adler & Sullivan were the architects. The design is simple, but is much relieved by richly ornate details. The entrances are adorned with fountains, and life-sized statues of inventors identified with transportation. Various bas-reliefs represent progress from the crude cart and dugout to recent wonderful inventions. On the roof of the annex of this building is located the exposition station of the elevated railway which

connects with Chicago. It is strong and very serviceable.

We stand before the "golden door" of the Transportation Building. It is very impressive, and consists of a series of receding arches overlaid with a silver and bronze finish. The main Roman arch and the corners above the arch are ornamented with bas-reliefs of Hercules, Vulcan, etc., and decorated with mural paintings of marine and railway themes. An outdoor restaurant is located above this grand portal, which faces the lagoon. No other single industry surpasses transportation in utility, or equals it as a power in the progress of civilisation. From the standpoint of capital invested, \$25,000,000,000 or more, it overshadows every other industry. The world's whole stock of money — gold, silver, and paper — would purchase but a third of its railways. Add to this, transportation by water, and conveyance on common roads, and what a gigantic industry!

We pass beyond the "golden door," and see the interior of the Transportation Building, with broad nave and aisles; and the exhibits range from a baby-carriage to a Mogul engine. Astride the main aisle is the Bethlehem 125-ton steam hammer — largest in the world — which is used in the manufacture of big guns and armour plate for our new navy.

Fluid compressed ingots of fifty tons weight astonish us. Nearly all the great British ship-

building firms are represented by their models. A model of the armoured warship *Victoria* is thirty feet long, and cost \$20,000. A fine chance here to study the various railway systems, — a complete train of English cars with a grand compound engine, and a luxurious mahogany train of the Canadian Pacific Railway Company. Here is contrasted the *Britannia*, built in 1840, 2,050 tons, with the *Campania* of to-day, with a capacity of thirteen thousand tons, and thirty thousand horse-power.

The New York Central and Pennsylvania Railroads, and the Pullman and Wagner Palace Car Companies also furnish elegant exhibits. The Baltimore & Ohio Railroad, oldest in the world, excelled in its historical exhibits. Their first locomotive, and the "strap rail" used, were interesting. Other exhibits were the "Rocket," Stephenson's original locomotive, the "Pioneer," and a huge English engine, the "Queen Empress." The New York Central's famous engine, "No. 999," contrasted strongly with the engine called the "DeWitt Clinton." Carriages and vehicles of all sorts, including the popular bicycle, occupied great areas of flooring. Statues of Fulton, Ericsson, Watt, and others are in sight. The ideal "Indian" and "Cowboy" are not forgotten by the sculptors.

Leaving the building, we look again upon temples, palaces, and fountains. Fronting on the North Canal

is the Mining Building, its style, Italian renaissance. For the first time in international expositions, mining products deservedly were given a building of their own. It is 350 x 700 feet, and cost \$265,000. Grand entrances are on each of the four sides. How pleasing the diversity of exhibits throughout the interior. Great Britain excels in her exhibits. Pennsylvania sends a tall column of coal.

Here is a dazzling display of diamonds, opals, emeralds, and precious metals. Everywhere are collections of iron, copper, lead, and other ores, and exhibits of coal, granite, marble, sandstone, and other building stone; soils, salts, petroleum; in fact, everything useful and beautiful in the mineral kingdom. Coals and their chemical analyses are shown. The resources underground are revealed by geological maps. For example, Texas is shown to have almost an inexhaustible supply of coal, though to-day she produces little or no coal for herself.

We stop at the famous Montana Rehan statue of solid silver, which rests on a plinth of gold. The North Carolina Pavilion is of mica designs, Kentucky brings a section of the Mammoth Cave, Iowa has a miniature mine, Wyoming a placer mining plant, New Mexico a miner's cabin. Pavilions of Ohio, Indiana, Colorado, and other States are built of their respective local products.

The United States now ranks first in the world

in iron and steel production, its annual output exceeding ten million tons, and soon to be more than doubled. Its production of steel aggregates about five million tons a year.

The Ohio exhibit in the Mining Building was grouped in a fine architectural pavilion, — a variety of sandstones, fire bricks, tiles, salt manufacturing, etc. Everywhere the products of the earth, — dull lead, bright copper, shining silver, precious gold, and sparkling diamonds. Under large portions of Ohio is an eighty-foot vein of salt. Perhaps that is why the Ohio people are so well preserved.

What grace and strength are combined in the grand Colonnade and in the heroic statue of the bull! A hundred and more statues of animals, domestic and savage, enliven the fair grounds far and wide. The Colonnade, with a café at either end, forms an ornamental connecting link between the Agricultural Building on the left and the Machinery Hall on the right, somewhat after the order of the Peristyle and adjoining structures at the east end of the famous basin.

North of the Colonnade is the great Obelisk and Lion Fountain. This affords a fitting termination to the southern vista. The Obelisk rises sixty feet in height, and tells of the discovery of America by Columbus. At the base are huge lions, suggestive

of Landseer's lions at the base of Lord Nelson's column on Trafalgar Square.

The Colonnade of the Machinery Hall is also fine. It seems as if built to last a thousand years. Two thousand men of good physique, character, and habits act as Columbian Guards; they are employed for police and fire duty, and as gate-keepers. Millions of dollars' worth of property depends for its safe keeping upon the vigilance of these guards. To also care for millions of visitors was a duty constant and arduous. A guard was asked why he wore a cap with strap under his chin. His answer was that "the strap often rested the jaws after answering foolish questions."

What a plethora of towers, domes, pediments, arches, columns, and colonnades come into view as we examine the exterior of the classic Machinery Hall, with its large annexes, the whole yielding a floor space of seventeen acres. Its total cost was \$1,200,000, Spanish renaissance the style. The first floor affords a promenade. A statue of Victory holds forth a laurel wreath above statues of the four elements, fire, water, air, and earth. On the walls are the names of Hoe, Siemens, Whitney, and other inventors of fame.

The interior of Machinery Hall is one intricate mass of moving machinery, a marvel of inventive genius. The three great arch trusses suggest three

immense exposition halls standing side by side, and yet all are one. In each of the three naves travels a monster elevated crane, used in constructing the buildings, and moving the heavy exhibits. The arches also carry a vast amount of shafting.

Steam power is used exclusively in the main building, and electricity in the annexes. Here is centred a gigantic force, 20,000 horse-power, that furnishes mechanical power to the entire White City, also forty-four engines from 150 to two thousand horse-power each. Crude oil, pumped direct from the Ohio fields, furnishes fuel for a battery, eight hundred feet long, of huge steel boilers. Every engine and dynamo is an exhibit. The mammoth Allis engine has two seventy-two inch belts, each of which drives a Westinghouse dynamo. The two dynamos are jointly capable of developing thirty thousand incandescent lights. Dynamos are in abundance. There are ten 1,000-horse-power engines, each driving a 10,000-light dynamo. Franklin, if alive, would have been filled with amazement. Here Vulcan forges thunderbolts into ingots, which man reduces to his wants. How varied and wonderful the countless exhibits! Gas engines, water-wheels, circular saws that cut iron, saw and flour mills, mining and textile machinery, knitting, embroidering, wire machinery, and a watch factory where complete

time-keepers are made. The rapid printing-presses astonish the visitors.

A novelty of the fair is the *Daily Columbian*, an eight-page composite paper of the White City. Five of its pages consist of the first pages of the *Herald*, *Inter-Ocean*, *Record*, *Times* and *Tribune*, and three pages are filled with daily programmes, official orders, etc.

The Columbia Fountain is a very beautiful creation, by Frederick MacMonnies. It stands in front of the Administration Building at the west end of the Court of Honour. The central idea of the designer is an apotheosis of modern liberty. Columbia is enthroned on a triumphal barge, and is heralded by Fame, guided by Time, and rowed by the Arts, Agriculture, Commerce, Industry, and Science. Foaming sea-horses precede the barge. An immense system of pipes and jets supply abundant water. Its cost was \$100,000.

At night the electrical illumination takes on all the colours and changeable tints of the rainbow. The effect is superb. To the music of dazzling falling waters Father Time steers Columbia on her course toward the rising sun.

Adjacent to the Mines Building is the Electricity Building, and its dimensions are about the same, viz., 350 x 700 feet. Naturally this building in its construction and ornamentations has received more deli-

cate treatment. The sky line is broken by towers, or campaniles, and domes. The style is strictly classical, and care is taken that the cornice shall be sixty feet in height, in common with the cornices of the magnificent group of buildings that enclose the great Court of Honour.

We now approach the south, or main entrance of this grand building, where stands the heroic statue of Benjamin Franklin, executed by the Danish sculptor, Carl Rohl-Smith. He was one of the most dramatic subjects in American history. Franklin's head is thrown back, revealing a face glorious in triumph. The whole pose is one of mastery; one hand grasps the kite, while the other holds aloft the key that has unlocked the greatest of all nature's mysteries. A child's plaything brings electricity down from the angry heavens, and in this simple manner begins the subjugation to man's use of one of the mightiest powers of the universe. Above the arched portal is Turgot's famous epigram concerning Franklin, "*Eripuit Cœlo Fulmen Sceptrumque Tyrannis.*" "He snatched the thunderbolt from heaven, and the sceptre from tyrants."

We enter where it is possible to study the whole history of the wonderful new science of electricity. An area of five acres of flooring is occupied by exhibits made practical and popular so as to enlighten the people. Electricity is neither a fluid nor matter,

any more than it is light or heat. It seems to be a force, or cause of a force, or a rapid mode of motion. Greece gave art to the world, Rome gave law, and America has given mechanics and inventors. Somebody has said that steam is the half of the Englishman, and that electricity is the half of an American.

Everywhere in the great Hall of Electricity are seen early electrical inventions, dynamos with direct and alternating currents, motors for street-cars and for a variety of purposes, strange devices for light-houses, apparatus for twisting ocean cables, and electrical fire and police service. Bell's elegant telephone exhibit invites you to enter. Over there stands a tower of insulators, and there another tower of carbons. You wonder at Edison's duplex and other devices for rapid telegraphic service, at his almost human phonograph and hundreds of patents, at Gray's telautograph, and at the well-nigh countless electrical inventions of Great Britain, France, Germany, and other foreign countries; and you call to mind the first telegraph message sent by Samuel F. B. Morse, "What hath God wrought?" Morse's original machine is also seen. In sight is a picture of Cyrus W. Field, father of the submarine telegraph system, also a model of the *Great Eastern*, which aided in laying the first ocean cable.

Of course at night the glories of electricity are

tenfold revealed in the Hall of Electricity. By the silent touch of an unseen hand, the Edison Light Tower, from Ionic pavilion or base to capital, is suddenly illuminated. The whole is encircled with an artistic network of thousands of miniature incandescent coloured lights, that change with constant kaleidoscopic effect. Other buttons touched, revealed throughout the hall the splendid workings of mind with that subtle something, which is called electricity, till the whole became a marvellous fairy-land.

Few if any workers have accomplished more in behalf of humanity than Sir William Thomson (Lord Kelvin) and Thomas A. Edison. The former is the greatest living physicist, a celebrated inventor, and a leading electrical engineer. He has been called the Grand Old Man and the Napoleon of Science. Edison has been a tremendous worker and inventor, a veritable wizard. Commercial utility has been his keynote. He has been called the Democrat of Science.

The modern philosopher's stone, or Great Secret, which thousands of engineers and chemists are seeking, is the direct production of electricity from coal and oxygen. This discovered, and the available mechanical energy of the world will be multiplied many times. Then one-twentieth of an ounce of coal should carry a ton one mile. Already a thirtieth of the three million horse-power of the monster force at

Niagara Falls, hitherto wasted, is in the traces, and is being transformed into useful electricity.

A desideratum of to-day is to remove the terrible smoke nuisance from the centres of manufacturing. This will be accomplished when all the soft coal is converted at the mines into electricity, and conveyed perhaps on aluminum wires at high voltage to towns and cities. Abundance of cheap electricity will solve innumerable difficult economic and social problems. It will quicken speed, and neutralise congested population. It will prove a life-saver on the sea, and perhaps help us to navigate the air. Now we hear by electricity, why not see and think by electricity? Both hearing and seeing seem to be nothing more than brain sensations by vibrations. When seeing by electricity is established, the gap to thought-transference may be bridged over by means as scientific as the telephone or phonograph.

The Manufacturers' and Liberal Arts Building is so located that water is seen on its three sides. Mr. Geo. B. Post, of New York, is the architect. This was the architectural wonder of the many wonders of the White City. It is the largest roofed building ever erected, and has a floor and gallery space of forty-four acres. The iron and steel in the roof alone would build two bridges the size of the famous Brooklyn bridge. This wonder is three times as large as St. Peter's Cathedral of Rome. Rome's

Colosseum could seat eighty thousand people. This wonder would seat three hundred thousand. Its ground plan was twice the size of that of the great pyramid of Cheops, and six times that of the Capitol at Washington. Its aisles are lighted with arc lights. On the vast floor six games of base-ball might be played at one time without crowding any of the players, or the Russian army might be mobilized. Its total cost was \$1,700,000.

Its four entrances are like triumphal arches. The eagle of the Republic is on guard at each portal. Once inside, how bewildering the brilliant palaces, pavilions, gilded mosques, minarets, kiosks, and golden domes! The interior, with marble walls and roof of glass, was a busy city. Five gigantic chandeliers, with hundreds of arc lights, flooded this vast interior with seeming sunlight.

We move down Columbia Avenue, and near the great clock tower, with its sweet chimes of bells, we come upon the exquisite Tiffany exhibit.

Here is the statue of Columbus, by Bartholdi, made from fifty thousand dollars of silver. This famous artist reveals Columbus in the act of his great discovery. "Land! Land! Land!" the sailors shout. Victory, so long delayed, now comes to Columbus.

A golden eagle is poised on a Doric column above the exhibit of the United States. American exhib-

itors were granted only one-tenth of the space originally solicited.

Shielded by a very handsome pavilion, the centre of which is adorned with a beautiful group of marble, is the elaborate exhibit of "La France." No confusion of dissimilar goods, only harmonious displays of wares; Gobelin tapestries, artistic ceramics, bronzes, silks, cotton and woollen fabrics; rich sets of furniture, perfumes, photography plain and in colours, etc.

Near by is the exhibit, which Germany, rival of France, sent to Chicago. Her pavilion is the creation of famous Gabriel Seidel, of Munich. It protects priceless silver plate, and cups, medals, vases, and decorations presented to Emperors William I., William II., Von Moltke, and Bismarck, some of which are commemorative of great battles or events. Everywhere are superb works of art, ancient and modern.

Look at the Chariot of Dolls, that delighted armies of children constantly in attendance. A great statue of "Germania" is on guard. How heartily the German people entered into the spirit of the World's Fair! Two hundred and fifty German cities and towns sent 5,500 exhibits. Their expenditure was ten millions, and Germany captured over nineteen hundred prizes.

The Russian exhibit covered an acre of flooring. Visitors met surprises at every turn. Such furs and furniture, fine silks and precious stones, goods useful

and ornamental made of green malachite and blue lapis lazuli, had never before been seen in America. Rarely, if ever, has Russia taken so great an interest in a foreign World's Fair.

Here, confronting you, stands the 40-inch Yerkes Telescope, which was the gift of Mr. Charles T. Yerkes to the University of Chicago. It is the largest refracting telescope in the world. Its weight is seventy five tons, and its objective glass cost \$65,000. The total cost was \$140,000.

Look at the Venetian gondolas! What rare pleasure to make the rounds of the sunny Lagoon and elegant Court of Honour in a gondola of old-time Venice, or in a trim electrical launch of modern Chicago. Scores of gondolas, propelled by gondoliers, and a fleet of electric launches were for hire. There were gondolas of bright colours, with canopies of rich velvet and satin, gold fringe, cord and tassels to match, and gondoliers of fourteenth century style, and handsome costumes for gala-days and fête evenings. Electric launches, finished in mahogany, were luxurious with cushions, carpets, and striped canopies; weather curtains protected from sun and storm. How happy the young men and maidens, as they idly drifted over smooth crystal waters, enraptured at every turn with visions of loveliness, and an ever shifting panorama of gilded domes, golden portals, statues, and sparkling fountains.

Standing on a graceful bridge, we behold the Administration Building by Richard M. Hunt, of New York. This architectural gem of all the Exposition buildings was the worthy capitol of the ideal White City. A graceful dome, 120 feet in diameter and 250 feet in height, surmounts the main octagonal building, and at the four corners are pavilions eighty-four feet square, which are occupied by the busy bureaus of administration. A score and more of groups and single figures of sculpture decorate this masterly effect. The most remarkable statues are Karl Bitter's groups of "Fire," "Water," "Air," and "Earth." On the exterior and beautiful interior are recorded, in gilded letters, the names of great discoverers, inventors, and leaders in science and art.

On a high pedestal stands St. Gaudens's Columbus. This heroic statue was begun by St. Gaudens, and finished by his daughter. Columbus gives to the breeze the standard of Castile and Aragon, and his sword points to the new world discovered.

The end of Columbus's life was pitiful. Returning home November 7, 1504, from his fourth voyage to the new world, Columbus, old, ill, and sad, he finds Isabella dying, and Ferdinand heartless. Already he is quite forgotten, and with no money to pay his bills, this extraordinary Italian dies May 20, 1505, at Valladolid. Later his body is removed to Seville, and finally to San Domingo.

In the new world which he discovered, several cities claim his bones. Columbus would have felt repaid for all his poverty and sorrow, could he have known, before death, that four centuries later two hemispheres would have studied earnestly the inspiring story of his faith, courage, perseverance, and success.

Mr. Daniel H. Burnham, of Chicago, was the Director in Chief of Construction at the Columbian Fair. He came from the State of New York, and was in middle life. The uniformity of design and the harmonious groupings of the Columbian buildings were remarkable. By masterly supervision, he evoked from his architects, sculptors, painters and landscape gardeners, all of the highest rank, a marvellous triumph, which the most exacting critics have extolled. Inside the Administration Building were the busy chiefs and the able assistants of the various departments. Success everywhere is usually spelled with four letters, W-O-R-K.

From the top of the Administration Building was obtained the grandest view of the "Court of Honour." What a triumph for American art! Doubtless if it ever was paralleled, even in the days of Imperial Rome, a city that rightly boasted of her temples, palaces, statues, bridges, and arches, beneath rare Italian skies, surely not before in modern times has so impressive a panorama been

unrolled. The beauty, harmony, and dignity of this Chicago picture irresistibly carried the beholder back to the triumphs of Grecian art. Athens, however, when the sun set, hid her loveliness, but the splendours of the White City were best revealed at night. Thousands of incandescent bulbs, or electric stars, trace the graceful outline of every dome, turret, and façade.

From the Basin the Goddess of the Republic rises full ninety feet in harmony with adjacent buildings, and beyond are the blue waters of Lake Michigan. Calmly confident of supremacy, the Goddess of the Republic, clad in golden robes, that fall gracefully from shoulders and arms, and with electrical coronet, freely offers liberty and peace to the oppressed peoples of the earth.

The marvellous search-light made visible Milwaukee, eighty miles to the north. First we turn the search-light on a statue symbolising Chicago, the "I will" of American cities. It was designed by a St. Louis artist, who won the \$1,000 prize for the best symbol of Chicago. You feel the force of her intelligent soul, that has built a magical city; her square has guided in matters material, her Phoenix-cap recalls the miracle of a city burnt and rebuilt with forethought. Her vital parts are shielded, and a dynamic force within has wrought the wonder of the nineteenth century. Chicago for centuries will wield

a silver sceptre of power over a great centre of population, that daily hastens to the broad valley of the Father of Waters.

Again, the search-light reveals the Agricultural Building with its tasteful sculpture; finally, in rapture, we behold the Administration Building, or Capitol of the White City, illuminated. Myriads of visitors are charmed by the fire-ribbons lowered from heaven, that outline frieze and dazzling dome, and over all is held a coronet of Koh-i-noor brilliancy.

A German, entranced by this after sunset scene at the White City, whispered to his wife, "If heaven is half as beautiful, it is worth a struggle to gain it."

An old coloured janitor from a college town said that "He saved his money all de year, and dat somehow he knowed dat de White City would be wonderful." As he gazed on the lighted temples and the vast multitudes, he was heard to pray, "Dear Lord, if thy servant is not good enough to spend eternity with de white folks in heaven, please let him stay for ever in de White City." Many of the fair visitors felt the same. One easily imagined that he had stepped upon a neighbouring planet, where civilisation and art had been purified, or that the veil was drawn aside, and that, for a moment, he was permitted to behold the glories of the New Jerusalem.

THE WORLD'S COLUMBIAN EXPOSITION. 197

FINANCES OF THE FAIR IN BRIEF.

Average daily receipts	\$89,802
Average daily expenses	21,969

The balance-sheet of the World's Columbian Fair shows the following :

Total receipts	\$28,448,524
Total expenses	\$27,023,683
Net	. 1,424,841
Total	—————\$28,448,524

THE VANISHING CITY — WORLD'S FAIR.

Enraptured memory, and all ye powers of being,
To new life waken ! Stamp the vision clear
On the soul's inmost substance ! Oh, let seeing
Be more than seeing ; let the entranced ear
Take deep these surging sounds, inweaved with light
Of unimagined radiance ; let the intense
Illumined loveliness that thrills the night
Strike in the human heart some deeper sense !
So shall these domes that meet heaven's curved blue
And yon long, white imperial colonnade,
And many-columned peristyle endue
The mind with beauty that shall never fade ;
Though all too soon to dark oblivion wending —
Reared in one happy hour to know as swift an ending.

— R. W. Gilder, in the *Century*.

THE GREAT LAKES AND THE
MEDITERRANEAN

THE GREAT LAKES AND THE MEDITERRANEAN.

"Seas do not divide; they connect" — *Emperor William II. of Germany.*

"Next to the protection of life and property, transportation is the most important concern of civilized existence." — *C. N. Dutton, C. E., New York.*

THE European Mediterranean is a great inland sea which serves as a connecting link between the three surrounding continents, viz., Europe, Asia, Africa. Its area is nearly a million square miles, and its shores include about three million square miles of the richest of lands. Here the extremes of temperature are unknown.

The area of the American Mediterranean, or the great fresh-water inland lakes, is to-day only about a tenth of the old world sea, but scientists claim that twelve thousand or more years ago, when the St. Lawrence and Mohawk Rivers were gorged with glacier ice, the five or six great lakes and adjacent submerged lands formed a single enormous inland sea, which in size must have rivalled the European Mediterranean.

Before the Atlantic wore away and submerged the isthmus that once connected Europe with Africa at

the Strait of Gibraltar, the evaporation being twice that of the rainfall, the level of the Mediterranean sank till in place of the present big inland sea there appeared several great lakes. The waters of the Black Sea ran through the Bosphorus and Dardanelles into the Levant or eastern basin, the same as the surplus waters of Lake Superior to-day rush through the narrow rapids of St. Mary's River into Lake Huron.

An examination of the submarine map of the Mediterranean reveals that its eastern and western basins, with a depth varying from one thousand to two thousand fathoms, were once separated by an isthmus which extended between Cape Bon, in Tunisia, and Sicily, and afforded free communication between Europe and Africa for elephants, the hippopotami, the sleepy dormouse, and other land animals.

A further study of the old world Mediterranean, physically and historically, may reveal the future great possibilities of the new world inland lakes. Like our great fresh-water lakes, the salt Mediterranean is practically a tideless sea. The levels of the Great Lakes slowly rise and fall till their respective basins become restricted to areas necessary to equalise the amount of evaporation and precipitation.

This is not the case with the Mediterranean. All the estimated 226 cubic miles of water, which its rivers annually discharge into it, are evaporated,

besides much additional water. The difference between the rainfall and the evaporation is supplied by a copious upper current from the Atlantic flowing through the Strait of Gibraltar, while an under current flowing west disposes of most of the excess of salinity.

The Mediterranean region is the cradle of civilisation. Many of the great dramas of the distant past, and not a few important events of later dates, were evolved on its shores. The Phœnicians dwelt on the sea coast of Syria, occupying a narrow strip of land. Homer represents them as daring pirates and merchants. They first applied astronomy to navigation. Their ships visited the British Isles for tin, and penetrated the Baltic for golden amber. Their splendid system of colonisation became a chief source of their power, wealth, and extensive commerce.

The Phœnicians furnished the world with alphabetical characters, arithmetic, costly products of the loom, and choice works of art which even the early Greeks greatly admired.

The south of Europe is divided into three beautiful peninsulas that extend into the Mediterranean, the most eastern of which includes Greece.

From Mt. Olympus, throne of the gods, and from Mt. Parnassus, the traveller cannot fail to observe the chains of mountains that divide Greece into small irregular plains that aided in forming the Greeks

into separate states. The scenery is very picturesque, and the climate is most enjoyable.

Here is a small country where were enacted wonderful parts in history by the Hellenes or Greeks. They too, doubtless, belonged to the famous Indo-European race, who from the earliest times have been the conquerors and civilizers of mankind. The Greeks also extended their colonial system everywhere along the coast of the Mediterranean, till in the sixth century B. C., the Hellenic race was the most powerful, in extent of territory and resources, in the European world. Poetry, the drama, architecture, and sculpture reached their highest excellence in Greece.

Italy, the middle peninsula, proudly claims Rome, a city, which before Christ, by successive stages rose to be the most populous, the richest, and the grandest of European cities, and was mistress of a universal empire. Her public edifices were of almost unparalleled magnificence. Upon and about the seven hills stood palaces, temples, basilicas, fountains, and baths, colossal mausoleums, obelisks, statues, triumphal arches, aqueducts, amphitheatres, and great artificial lakes for spectacular sea-fights.

Carthage, on the north shore of Africa, became the rival of Rome. Love of gain, and not patriotism, was the ruling passion of the Carthaginians. The three Punic wars destroyed the power of Carthage.

The perseverance and iron will of Rome finally triumphed over the strategy and political genius of Hannibal, and Scipio destroyed Carthage, and ran the ploughshare over its site, sowing salt in the furrows, emblem of annihilation.

In 647 an expedition left Egypt, impelled by the hope of plunder and the desire to promulgate the religious system of Mohammed, overran North Africa, and soon had fleets at sea which dominated the Mediterranean. For a long time it seemed as if all Europe would be obliged to submit to this new religion.

These victorious Arabs or Moslems found the sword an efficient missionary, and pressed forward till checked at the Pyrenees by Charles Martel, and later by the cross at the walls of Vienna. Wherever the Arabs settled, they introduced an improved system of agriculture, they fostered literature and the arts of peace, and even to this day their architecture is the wonder and admiration of the world. Commerce was highly honoured by the Arabs. In the ninth century, however, dissensions began to undermine the Moslem Empire, and in 1492 the Arabs or Moors were driven out of Western Europe by Ferdinand and Isabella.

The dread of the vast solitudes of the ocean beyond the Pillars of Hercules, was gradually overcome. Columbus discovered America, and the

Portuguese circumnavigated Africa, and so relegated for a time the Mediterranean to a position of secondary importance.

When Ferdinand De Lesseps created the Suez Canal, once more this historic sea became the highway of nations. Now a round voyage to the East is made in sixty days, which formerly required from six to eight months.

English commercial intercourse with the Mediterranean dates back to the time of the Crusades, and to-day Great Britain is the great carrying power of the world.

The American Mediterranean, and the valleys of the Ohio, Missouri, and Mississippi, were explored by the missionary, the fur-trader, and the soldier, who bore the flag of France. The outposts of civilization on the line of the St. Lawrence system were held by France for over two hundred years, when, by the Treaty of Paris, in 1763, she ceded Canada, or half a continent, to Great Britain, with about equal water rights on the Great Lakes. The French explorers, Cartier, Champlain, Duluth, Hennepin, Joliet, La Salle, Marquette, and others, were the pioneers of faith and civilisation, and their names and influence cannot be forgotten.

Ferdinando De Soto, who was the first European to look upon the "father of waters," when a youth loved Isabella, the beautiful daughter of his old

patron, Davilla. For fifteen lonely years she waited and watched for the return of her lover from his long journey to the new world, and married him. Then Isabella accompanied Ferdinando back to Havana, where she patiently awaited his return from the conquest of Florida, and a fruitless search for gold.

The hot springs of Arkansas, which De Soto discovered, were accredited with being the long-sought-for fountain of youth. But a slow fever ended his life far from his expectant bride. That all knowledge of his death might be kept from the superstitious Indians, who credited him with supernatural powers, his grief-stricken companions encased his body in a tree-trunk, and, wrapping it with his mantle, at dead of night they sank it in the depths of the Mississippi. News of the death of her Spanish lover crushed Isabella's heart, and she expired at Havana.

The Dominion of Canada and the United States, for nearly half the distance across the new world, are divided by the St. Lawrence River and system of Great Lakes. From tide-water on the Atlantic, the Great Lakes system penetrates 1,400 miles into the heart of the continent, and the head of Lake Superior is only 1,700 miles from the Pacific Coast. Belle Island, at the mouth of the St. Lawrence, is about midway between Duluth and Liverpool.

The area of these great American lakes is about twice the size of the State of New York. They contain more than one-half the area of all the fresh water on the globe, and form the largest system of inland and deep water navigation on the earth. No other inland water-system floats so vast a commerce, or touches, as this does, the vital interests of so many millions of independent and thrifty people. It is also remarkable that three of the drainage systems of the continent have their sources about 150 miles northwest of Duluth. Thence flow waters to the ocean, northward into Hudson's Bay, southward through the Mississippi Valley into the Gulf of Mexico, and eastward through the lake system and the St. Lawrence into the Atlantic. Of the eight States that border directly upon the Great Lakes, some are the largest, most populous, and highly productive, while to the northwest of Duluth and also tributary to the lakes, lie spread out of American and Canadian territory, capable of boundless production and great population, an area equal to thirty States, the size of the Empire State.

The tonnage of the Great Lakes will not only compete for this enormous commerce, but for the unlimited products of the vast plains and mountain regions of the far Northwest. And this is not all, for largely on this water line the commercial exchanges of the Atlantic States and Europe will be

made with the Pacific slope, Japan, China, and distant Australia.

Already the traffic on the Great Lakes is gigantic, approximating sixty-five million tons. The grain movement alone, in the season of 1898, on the Great Lakes system was, including flour shipments, about 275,000,000 bushels, or about four and one-half bushels per capita for every inhabitant of the entire country.

The total entries and clearances, foreign and coastwise, in 1889, for the ports of London and Liverpool, were 33,420,617 tons, and the same year the total entries and clearances in the foreign trade, at all the seaports in the United States, were 26,983,313 tons; the combined tonnage is 60,403,930 tons, which falls far below that of the Great Lakes.

The fish of these lakes are valuable, but vastly more profitable are the Great Lakes, as an international highway for the cheapening of tonnage for the people.

For the years 1889, 1890, 1891, the all-rail rate from Chicago to New York, 985 miles, was 14.76 cents per bushel. The average rate for same years on wheat from Chicago to New York by the lakes (1.73 cents) and the Erie Canal (5.14 cents) was 6.87 cents per bushel, a saving to producer and customer of over half the railway freight, or 7.89 cents per bushel, which means a vast amount of annual sav-

ings. In 1859 it cost, to carry a bushel of corn from Chicago by lake to Buffalo, 15½ cents. In 1895 it cost only seven-eighths of a cent. In 1867 it cost to carry a ton of iron ore from Escanaba to Lake Erie ports \$4 25. In 1895 it cost only fifty cents. For the season of 1896 the all rail and water rates were the lowest ever known. West of the lakes the railway freight charges exceed one cent per ton mile. On the close of navigation, trunk lines competing with the lake carriers for the grain trade usually double their freight charges. The five commodities, wheat, corn, iron ore, coal, and lumber, make up nine-tenths of the total enormous tonnage moving through the St. Mary's Falls Canal, the iron ore being over one-half. The cost per ton per mile for an average of eight hundred miles has been below one mill per ton mile (see War Department records of St. Mary's Falls Canal). This is less than one-fifth of the lowest cost to any of our railways. This very low water rate alone makes it possible for the Lake Superior iron ore to move on wheels to meet the coal of the Central States.

The record of the Oliver mine, a Carnegie property (now the U. S. Steel Corporation), on the Mesabi range, for 1896, is most remarkable. In a single day, two steam shovels mined 10,750 tons of ore, and during July the Oliver mined and

shipped 180,000 tons. In the ore business already dependent on the highway of the Great Lakes there is now invested the enormous amount of about \$300,000,000.

On June 30, 1900, the registered American tonnage of the lakes was 1,565,587 tons, and included 1,739 steam vessels, and 1,428 sailing vessels and barges. The newer steel steamships range from twenty-five hundred to five thousand tons register. The larger ships, with nineteen feet of water, will carry eight thousand or more gross tons. The Great Lake fleets, regardless of wind or weather, bear their cargoes from port to port, a thousand miles apart, with the precision of the steam railway, some of the cargo ships conveying more than ten ordinary freight-trains.

A large percentage of these steel ships were built in Cleveland, the "Clyde of America."

Borrowers of trouble have feared that Cleveland and other Lake Erie ports might become inland cities by the advance of Niagara Falls into Lake Erie, draining the lake so that a river thirty miles or more north of Cleveland would connect Buffalo and Detroit. But the increased use, in the near future, of much of the water above the falls upon gigantic turbine wheels in the production of electricity, will probably safeguard the falls in about its present location.

Citizens on the Great Lakes need, however, to be much concerned in securing deep water communication on the lakes, between the Great Lakes and the Atlantic, also in regulating the levels of the lakes. The carrying capacity of the present lake fleet will be greatly increased, when twenty feet of water is had through every channel between Duluth, Chicago, and Buffalo. At a cost of about \$5,000,000, the great Poe lock, on the site of the original lock of 1895 at St. Mary's Falls, is already completed. In 1900, during a season of about 238 days, over one hundred per cent. more tonnage passed the St. Mary's Falls Canals than through the Suez Canal, a world's channel of commerce, and open the entire year. The record is as follows: The net registered tonnage passing St. Mary's Falls Canals for 1900 was 22,315,834 tons, against 9,895,630 tons in 1899 for the Suez Canal. In 1900, the number of vessel passages through the St. Mary's Falls Canals was 19,452, through the Suez Canal in 1899, 3,647. During the season of 1900, the total freight tonnage of St. Mary's was 25,255,810. The average cost per ton per mile, from 1888 to 1899, in vessels passing St. Mary's Falls Canals, was .0113 cents; on Lake Shore and Michigan Southern Railway, .0417 cents. In lake vessels as above, 1898, .0079 cents; on above railway, 1898, .0329 cents.

More vessels pass through the Detroit River

than enter London or Liverpool. The value of St. Mary's Falls Canals tonnage in 1899 was \$281,364,750, and the cost per ton mile was one mill and five hundredths of a mill. This is less than one-fourth of what the best railways receive on through freight. Millions of dollars more are being expended in removing other channel obstructions, and in dredging flats and shoals. These deeper channels will greatly reduce freight rates.

At the lower end of Lake Erie serious obstructions to navigation are encountered. Only fourteen feet of water is available from Lake Erie via the Welland Canal and the St. Lawrence River, with the costly improvements now completed by the Canadians, so that at the foot of Lake Erie most of our traffic for the seaboard and foreign ports must break bulk, and suffer wastes, tolls, and transfer charges often as great as the lake commerce itself.

How to minimise the food prices paid by the consumer is one of the world's great problems. An important factor in the solution is cheap transportation, which is a powerful magnet that attracts and creates traffic. The keenest minds of the continent are seeking to solve the great problem of deep-water navigation from Lake Erie to tide-water. From an American standpoint, the patriotic solution is in the route from Lake Erie to the Hudson via Lake Ontario, the River St. Lawrence, Lakes St. Francis and

Champlain. The canal mileage would be seventy-five miles only, and the ton mileage would be increased fifty per cent. or more. The cost of a twenty-foot canal, which would be \$100,000,000 or more, is of course the most serious obstacle. The Hansbrough-Cooper bill, in Congress, seeks the incorporation of the Maritime Canal Company of North America — a measure asking no government aid or guaranty in any form to build a ship canal from the Great Lakes to the Atlantic.

The locks to admit vessels are to be 550 feet in length and sixty-five feet in width, the number of locks not to exceed ten. The course around Niagara Falls, in the State of New York, with a declivity of 326 feet, includes only two locks, the Dutton pneumatic, possibly. This improvement would stop the payment by the United States of tolls to Canada through the twenty-five locks of the Welland Canal. It is a very difficult problem to determine the type of vessels that will be best adapted to lake, canal, and ocean-going service combined. In the meantime, the State of New York, believing in improved canals for the barge fleet, has expended \$9,000,000, or more, for the increase of depth of water from seven to nine feet, and for wider canals and for an improved and less number of locks on the Erie, Champlain, and Oswego canals. The old Erie Canal, 351 miles in length, that cost the State \$50,000,000, and paid

into the State treasury \$34,000,000 more than its total cost up to the time when tolls were abolished, has also saved for the people hundreds of millions of dollars in the reduced cost of transportation, by its control of East and West trunk railway rates. It is well known that rail tariffs are about doubled between the lakes and tide-water during the close of navigation.

The railways of Pennsylvania bought the canal property of that State, and so prevented competition.

The citizens of New York, more jealous of their rights, have repeatedly declared that "their canals shall not be leased, sold, or otherwise disposed of, but shall remain the property and under the control of the State for ever."

This deepening of the Erie Canal for the present is perhaps the best improvement of the waterway to the sea.

It would seem that far greater benefits would accrue from the expenditure of perhaps \$5,000,000, in the construction of dams across the Niagara River and the St. Mary's River in an attempt to regulate the permanent levels of the Great Lakes, thus preventing in dry seasons a change of several feet in the depth of water in many of the lake channels and harbours.

Popularize the project of properly regulating the lake levels, and the money problem can be more easily settled than the international legal questions which may be raised. Engineering difficulties would

be readily overcome, and thus much needed improvements would repay the investment many times. No piers or other obstructions should ever be built in any lake water ways west of Buffalo.

"To conceive extravagant hopes of the future," said Burke, "is a characteristic of mankind," but we think the statistics of the Great Lakes warrant the broadest of plans, and the highest hopes.

"For thirty-five years I have watched the increase in our lake commerce, but neither I nor any one else has been able to expand in ideas at the same rate. The wildest expectations of one year seem absurdly tame by the side of the actual facts of the next." (Gen. O. M. Poe.)

No doubt in the past, cheaper material, cheaper labour, and cheaper capital have given Great Britain the ascendancy in shipbuilding industry and in commerce.

But close observers clearly see that the law of diminishing returns in Great Britain has become operative; that prices relatively in this country and England are approaching a common level; that her domestic ores have fallen off nearly fifty per cent.; that she is obliged annually to import more and more of foreign ores and pig iron suitable for Bessemer and open hearth processes of making steel; that even the Bilbao ore district in Spain approaches exhaustion, so that the United States, especially the Cleve-

land district, is on the eve of competing successfully and on a grand scale with the world in all the iron and steel industries. Already several shipments of pig iron and steel have been made to England. If our country is to regain its old-time supremacy on the ocean in commerce, is it too much to hope that, with the unlimited supplies of cheap steel ores, and coal near at hand, Cleveland and other lake cities will furnish structural steel in abundance, which can be sent by Erie barges to tide-water, and there built into ships and buildings cheaper than Great Britain or the Atlantic seaboard can supply the requisite materials?

A great national need to-day is enough American tonnage to carry our immense surplus produce from tide-water to Europe, and when possible from the lakes via a ship canal, and so save an annual drainage of over a hundred million dollars paid to foreign ships. This would greatly help to keep the balance of trade in our favour and guarantee the United States as a credit nation.

The American Mediterranean, or Great Lakes, improved, and with a deep-water ship canal completed, will surely furnish the best possible roadway from the heart of a large rich continent and energetic civilization to the world's markets. The wheat of the great West is handicapped by the fact that ocean tramps, not half the size of the lake boats, carry two competing bushels of Argentina grain to Liverpool

for the carriage paid from Dakota to the river Mersey. Mr. Joseph R. Oldham, of Cleveland, says that with a deep channel to tide-water, our lake steamers could find work all the year round. Whatever competition steam railways, reinforced by electricity, compressed air, or gas may offer, our inland freshwater communications will regulate the prices of many, if not all, of the most important primary products of the great Northwest.

SPANISH RULE, AND ITS END, IN
CUBA

SPANISH RULE, AND ITS END, IN CUBA.

THE West Indies is a vast archipelago of a thousand islands, which form the gateway to the tropical wealth of the Americas. Foreign flags, largely the British, float over almost the entire West Indies.

Cuban waters form the Dardanelles of the two American continents, and Cuba is "the key to the new world," and to American independence. A man's home ceases to be his castle when he becomes a criminal, and Spain's rights diminish when she tramples liberty of conscience and equal rights under the foot of a boy-king, and threatens the liberties and business interests of many liberty-loving nations.

In the report of the Bureau of Statistics, 1896, we learn that the trade of the United States with seven of the West India Islands for five years ending June 30, 1895, was as follows :

Imports	\$454,076,843
Exports	190,986,042
	<hr/>
Showing a loss or balance of trade against	
us of	\$263,090,801

222 *SPANISH RULE, AND ITS END, IN CUBA.*

With most of the islands with which we traded, the exports and imports about balanced each other. Not so with Cuba; with her the account stands as follows :

Imports	\$346,902,092
Exports	87,269,138
	<hr/>
Loss for the United States .	\$259,632,954

Eighty-three per cent. of Cuban products come to the United States. Spain so regulates the differential duties that she does not import from Cuba even a third as much as she exports to the island. Thus the toilers of Spain are largely remunerated, while American labour is out of pocket nearly \$260,000,000.

Columbus discovered Cuba October 28, 1492. He named the island Juana, but the Indian name has survived. Columbus revisited Cuba in 1494, and again in 1502. Three years later, old, poor, and sad, he died at Valladolid. Not till 1892 did the world earnestly study the inspiring story of Columbus's faith, perseverance, and success.

Florida extended south, and Yucatan east, both would collide with Cuba and enclose the Gulf of Mexico. The distances, 130 miles, from Florida and Yucatan to Cuba, are about the same, or a little less, than from Albany to New York. Cuba resembles an irregular crescent, and its concave side embraces

the sun's bountiful gifts. Its length is 750 miles, and its average width from fifty to sixty miles. If the island were lifted out of the Atlantic and carried northwest, with its easternmost point, Cape Maisi, laid down at Washington, its western point, Cape San Antonio, would extend to the vicinity of Chicago. Its area is about that of Ohio or Pennsylvania. Cuba has two thousand miles of coast line, fringed with a necklace of tiny islands, keys, and banks, and several fine harbours with narrow entrances. The island is capable of an economical defence that would make Cuba the American Gibraltar.

It is thought that the Antilles are the remains of a mountain range which, at some remote period, united the continents of North and South America, thus creating a second Mediterranean, where now is the Gulf of Mexico. A sierra ridge of mountains passes from the east coast of Cuba along the middle of the island, breaking away first to the north coast, then to the south coast, then extending west again till it fades away in the marshes of Cape Antonio. Rolling uplands and low-lying plains abound. A nearly equal distribution of many short rivers, and a rapid change in the climate as elevation increases, make Cuba a most remarkable island. Evergreen foliage, noisy cascades, enormous caves, natural portals, flowering orchids, and other tropical flowers, with animal life in gayest colours, present a picture

of which Columbus wrote to his sovereigns: "Here is the fairest land that the sun shines on, or that the eye has ever seen." Truly Cuba was an ideal mausoleum for the remains of its illustrious discoverer.

Cuba's highest peak, the celebrated Pico Turquino, 8,320 feet high, not far from where Columbus first landed, makes the fittest monument to the memory of the most famous of Spanish sailors.

This "Pearl of the Antilles" has few lakes. Some are enclosed among the high hills, the most remarkable of which is that of Lake Ariguanabo, twenty miles southeast of Havana. It has a surface of about six square miles, is deep, and abounds in fish. Other lakes are located in close proximity to great marshes or lowlands, and hidden from everything except the burning sun and greedy alligators.

Cuba may be broadly divided into the region of the plains, the rolling uplands, and the forest lands. The lowlands form a practically continuous belt around the island, and in them are to be found the great sugar plantations. Above these and on the lower slopes are found the grazing and farm lands, upon which, among other things, is raised the famous "Habana" tobacco. The remainder of the island, especially the eastern portion, is covered with a dense forest growth.

Cuba is politically divided into six provinces, which take the names of their respective capital cities.

Beginning at the east, they are : Santiago de Cuba, Puerto Principe, Santa Clara, Matanzas, Habana, and Pinar del Rio. The provinces are again divided into twenty-five judicial districts, and several cities.

Santiago de Cuba is a large and wealthy province, and abounds in mineral riches. Its iron ore makes superb steel, and over two hundred mines exist.

The province of Puerto Principe, also known as "Camaguey," contains immense forests, also large caves. Here, in inaccessible mountainous heights, the Cuban insurgents had their temporary capital. The chief industries are the marketing of building and cabinet woods, and the preparation of preserves of guava.

Santa Clara, formerly called "Las Cinco Villas," was the first province settled, and is one of the richest of the six provinces. It abounds in gold, silver, copper, and asphalt. Its fertile soil yields abundantly of the products of the tropic and temperate zones. Here also may be seen some of the largest sugar plantations and factories.

Matanzas, however, is the centre of sugar production, and is the best developed and wealthiest portion of the island.

Habana province yields a great variety of agricultural products and is the centre of manufacturing.

Pinar del Rio grows most of the choice tobacco, which speculators purchase in advance and retail

it at high prices to customers in America and Europe. The export of tobacco from Cuba in 1892 was 240,000 bales and 166,712,000 cigars.

Throughout the island fine marble and bituminous coal of excellent quality are found in large quantities from the coast to the mountains. Such is the similarity and dip of Cuban rocks that geologists think that the island at one time was probably united to Florida. Proof of this is also found in the animal remains.

Sugar, tobacco, and coffee for years have formed a large part of the wealth of the island, but the frequent ravages of civil wars and exorbitant taxation are making frightful losses in these heretofore profitable industries. The lowlands are well adapted to the growth of the best of sea island cotton.

It is true that frequent foreign and coastwise steamers connect Cuban coast cities with each other and the outer world, and that the island has one thousand miles of railways, such as they are, and two hundred miles of fairly good turnpikes, but Cuba needs most a change of religion and Americanizing.

The woodman's axe would then be heard in Cuba's uncleaved forests of thirteen million acres. Here are some of the most valuable of woods, such as mahogany, ebony, and cedar. Cuba boasts of over three thousand indigenous flowering plants, and of thirty species of palms. These palms in abundance inter-

mingle with pines and mahogany on the Isle of Pines, which lies sixty miles south of Pinar del Rio. Columbus called it the "Evangelist Island," and it is over half the size of Rhode Island. The Isle of Pines is fertile and furnishes many varieties of beautiful marbles, tortoise shells, pine, and turpentine, cedar, and mahogany.

The climate of Cuba is mild. The seasons are known as the dry and wet; the latter begins about May 1st and extends through October. The rainy days average from eight to ten per month of the wet season. The mean annual temperature at Havana for the hottest month is 81 degrees F.; for the coldest, 70 degrees F. Abundant breezes from the north and copious showers make Cuba, for intertropical climate, delightful, and for vegetation a paradise. The atmosphere is very transparent, the sea beautiful with shifting green, and the sunsets are soft and mellow.

Havana, the chief city of Cuba, is located on the northwestern coast, and has a fluctuating population of about two hundred thousand.

The most conspicuous of her fine buildings is the cathedral, where, until recently, both Columbus and his son Diego were buried. The opera-house is magnificent. One sees the university, imposing residences of the governor-general and the bishop, and several educational and eleemosynary institutions.

Generally, the houses are two stories, and the streets are narrow, but the citizens are justly proud of their central promenade, Isabel Segunda, the public squares, gardens, and her half-hundred fountains.

Fully three thousand vessels enter and clear from Havana in prosperous years. The spacious harbour, if improved, would shelter the navies of the world. Cuba, Americanized, would shelter not alone our white navy, but every winter America's wealth and the many who need a Southern sun. Havana's half-dozen fortresses could shelter an army — the Cabana alone four thousand men.

One hundred years ago Spain closed Havana to shipbuilding on demand of the shipbuilders of the mother country. In seventy-five years 114 war-vessels, to convoy the Spanish treasure ships, were built in the great Havana navy yards.

Spain gained her title to Cuba by right of discovery. Previously, however, Pope Eugenius IV. had issued a bull granting to Portugal the absolute ownership of all pagan lands discovered from Cape Non to India. Fearing that the Spanish discoveries might conflict with those of the Portuguese, Pope Alexander VI. designated a line to be drawn due north and south, one hundred leagues west of the Azores, from one extremity of the world to the other, and all pagan lands or discoveries east of this line were confirmed to Portugal, and all to the westward

were to be the exclusive property of Spain. The right of other nations to participate was excluded. This famous map and autocratic division of the globe was on exhibition at the World's Columbian Fair.

The Spaniards first settled upon Hayti, or Hispaniola. So severe was the slavery then imposed upon the native population, that in eighteen years the numbers were reduced from more than a million to fifty thousand persons. The hunt for gold was taken up by Columbus's son, Don Diego, who in 1511 landed at Baracoa, Cuba, with three hundred soldiers.

The feeble and guileless Indians offered little or no resistance. A native chief, Hatuey, attempted opposition, but was taken prisoner and condemned to be burned alive.

Hatuey was fastened to a stake, and the fagots piled high around him. Then came a Franciscan friar and urged him to renounce the weak gods of his ancestors, and accept blessed Christianity. The solemn friar promised that the same flames which consumed his body would waft his soul to the enjoyment of eternal bliss. Hatuey inquired of the monk if there were any Spaniards in those happy abodes, and when answered in the affirmative, he said: "No, I will not go where I may meet one of that accursed race." This was the first gentle pressure of the Spanish mailed hand that for four centuries had crucified the Cubans. Three scores of

captains-general have ruled the Cubans with all the powers bestowed upon governors of besieged cities, or commanders of ships at sea, which differs little from Oriental despotisms ; no wonder that the native population of Cuba rebelled, and preferred continuous war to the hardships which Cubans have continuously suffered for four centuries.

Usually colonies are planted to open a safety-valve for a discontented or a redundant population, and to provide the mother country a closed market in which she can buy cheap and sell dear. A monopoly of the carrying trade is also secured. Spain has always been guided by this policy, but Great Britain has learned better.

An ambassador once told his sovereign that to abolish the inquisition, and permit free navigation of Western seas, would be to give up his two eyes. The attempt to keep the new world a closed sea brought on what Carlyle calls the "war of Jenkins's ear." Because the English Captain Jenkins persisted in sailing in these Western seas, a Spanish captor cut off one of Jenkins's ears, and in foolish bravado told the captain to take it home and show it to his king.

Captain Jenkins did as he was bid. The ear was kept in a bottle of spirits, and, in the course of a debate in the House of Commons, he and it were presented ; the sensation and public sentiment was such that Walpole declared war.

The wonder is that when the news of Maceo's death reached Washington, Congress, with a second Venezuelan frenzy, did not declare for Cuba libre.

Fruitless attempts in Cuba at open revolt were made in 1823, 1826, and in 1829. A fourth attempt at insurrection in 1844 failed, and 1,346 persons were punished, seventy-eight being shot. In 1848 President Polk offered Spain \$100,000,000 for Cuba. The next year Lopez lost his life in a second attempt to free the island of Spanish rule.

In 1850 the seizure in Havana Harbour of the steamer *Black Warrior* was an irritating incident in diplomatic history.

In 1852 the United States refused to sign a tri-party convention by which Great Britain, France, and the United States would each be bound not to acquire Cuba, or suffer any other power to do so.

The celebrated Ostend Manifesto of 1854, signed by Buchanan and others, recommended the purchase of Cuba at \$120,000,000. In 1858 the Senate of the United States discussed the acquisition of Cuba. In 1868 the Cubans took advantage of the revolution in Spain, when Queen Isabella left her throne, and made a declaration of Cuban independence at Manzanillo, Santiago de Cuba. In the ten years' war which followed, Spain used in subduing the Cuban rebellion not less than 235,000 soldiers, and it is shown by the records of the War Office at

Madrid that the total deaths in Spain's armies in Cuba were not less than eighty thousand men.

Why these repeated uprisings and slaughter in one of the most fertile islands of the globe?

Spain is old, poor, and exhausted. Her debt, running for centuries, now amounts to about \$3,000,000,000, and is too great for her resources, and can never be paid. To pay the interest requires a grinding and terrible oppression, the same as the Sultan imposes upon his Armenian and other subjects. Despots never learn economy. Here is a partial annual salary list of Cuba:

Captain-general	\$50,000
Each governor of the six provinces	12,000
Archbishop of Santiago de Cuba	18,000
Bishop of Havana	18,000

In addition to the salaries of all officers, civil and ecclesiastical, from the highest to the lowest, there were many "perquisites."

Universal corruption existed on the tax-book and at the custom-house.

In the speech delivered March 8, 1890, by General Pando, in a debate in the Congreso de Diputados at Madrid, he stated that a series of embezzlements and defalcations in Cuba amounted to more than \$40,000,000.

Deputy Dolz alleged that the custom-house frauds

in Cuba, since the peace of 1878, amounted to \$100,000,000. He further added that a curse was pressing upon Cuba; that the island was undone; that there was no salvation possible for her.

Cuba's cities were hopelessly in debt. The people of Cuba had been paying an annual revenue of \$25,000,000 to Spain. But in 1867-68 it was proposed to levy a tax of \$40,000,000. No wonder they preferred the hardships of war; what would the people of Ohio say to a tax like the above?

Cuba's unjust taxation was not her only trouble.

In the race of cane and beet sugar in 1895, the German Empire furnished 4,270,000 tons, or over half the world's entire output of sugar.

In forty years cane production has increased only two and one-half fold; that of beet sugar, twenty fold. Cuban tobacco has fared little better than Cuban sugar.

Persons sent from Spain filled most of the Church and state offices; they came to replenish an empty purse, and, like Doctor Zertucha, hoped soon to return and excite the envy of Spanish grandees.

The debt of Cuba amounted to the fabulous sum of \$175,000,000.

The people of Spain pay annual interest per capita on the national debt, \$3.23; Cubans paid per capita \$6.39 interest on a debt which they did not contract.

The area of Cuba and dependent islands is about

that of Pennsylvania ; the population of Cuba, 1,750,000, is less than one-third. The negro element, which is constantly decreasing, comprises little more than one-fourth of the whole population. The ratio of whites and blacks in Washington by the last census was sixty-seven per cent. to thirty-three per cent. So negroes are more numerous in our capital than in Cuba.

The fact that the negroes in Cuba are not proportionately one-third as great as in Hayti, together with the good conduct of the American negro during the civil war, lead us to believe that the horrors of Hayti will never be repeated in Cuba.

The Cubans, like the Armenians, for centuries have endured terrible hardships, and they fight hard and long for freedom, and seek independence even with the odds heavily against them. Much sympathy is extended, and some aid, but sympathy alone will not satisfy hunger, furnish clothes, or resist Spanish bullets. The Cuban revolutionists claimed a total of 42,800 men, fighting under thirty-one chiefs in the six provinces.

Spaniards ship their prisoners to the penal colonies of Ceuta, on the coast of Africa, but the Cubans free theirs, for they prefer the rifle and cartridge-box to the man, for Cubans are forced to capture most of their arms and ammunition, if they have any.

On September 16, 1895, representatives from five provinces and from several divisions of the Cuban army, met in convention at Camaguey, completed and adopted a constitution. They elected a president, vice-president, secretaries of foreign affairs, of war, and of the treasury, also general-in-chief and lieutenant-general.

The convention passed laws dividing the island into states, districts, etc., and laws for establishing post-offices and collecting taxes, and regulating mariages, etc.

The headquarters of the Cuban republic was called Cubitas. It was located on the top of a mountain, twenty-five miles from Puerto Principe. It is a mountain fortress, which a hundred men could defend against the armies of Xetxes.

The Maroons, in their mountain fastness on the neighbouring island of Jamaica, defied the English government for seventy-four years.

Why should not the resolute Cubans successfully resist Spanish rule?

Thoughtful men cannot forget that Spain has shipped to Cuba, from March 7, 1895, to March 11, 1896, nine great expeditions, aggregating an army of 120,000 troops, officered by ten thousand skilled soldiers, also 150,000 magazine and repeating rifles, and sixty million cartridges. Besides, General Weyler had under arms a "volunteer"

corps mostly Spaniards, of fifty thousand residents of Cuba.

These many thousands of Spanish soldiers, and six fortresses, kept Governor-General Weyler and his government secure at Havana.

When we recall the vigorous action of Congress on the Venezuela incident, the wonder is that American armed intervention was held in abeyance.

The tragic, not to say treacherous, death of Maceo sent the American blood of sympathy almost to the point of instant Cuban recognition. This "Sheridan of Cuba," who gave his father and six brothers to freedom's cause, by his extraordinary defence of the province of Pinar del Rio has won the plaudits of the world. With his staff, he had safely crossed east of the famous trocha, and hoped soon to join General Gomez in his march to Havana, when his band encountered the Spanish Cirujeda's haughty summons to surrender. Swift from Antonio Maceo came the loyal response, "Vive la Cuba Libre!" and he and his brave men rode to death.

Young Gomez, who, without his father's permission, had joined Maceo, riding up, exclaimed, "My God! Is that Maceo's body?" When urged to escape, he replied, "No, I will stay with Maceo." Later, when Diaz returned to bury the slain, young Gomez lay across the breast of his chieftain — both dead; a scene worthy of the poet's pen and artist's

chisel. Though dead, these brave spirits helped to conduct the white-haired General Gomez to victory, and to lift the star of Cuba above the fortresses of Havana.

Early in 1896, I was introduced to the widow and son of Jose Marti. The sad woman had escaped to the School of Friends at Chappaqua, N. Y., to find refuge for her son. She said: "I have given Jose to Cuba, but must save my boy." Her handsome son gave answer, "Mother, your consent, and I go to Cuba at once."

Jose Marti, chief organizer of the late Cuban uprising for liberty, was delayed with the three vessels at Fernandina, Fla., by the United States authorities. Otherwise, he had hoped to be present at the inception of the Cuban rebellion, which began February 24, 1895, when only twenty-four men defied the Spanish authorities at Ybarra, in the province of Matanzas. In April, Antonio Maceo, his brother Jose, and a score more of revolutionary leaders, arrived from Costa Rica. Ten days later Jose Marti, Maximo Gomez, and others arrived from Santo Domingo. Jose Marti was killed in battle May 19, 1895, and General Gomez became the commander-in-chief.

A twofold question is involved in this Cuban matter, and it is of vital interest, for it concerns not only the freedom of Cubans, but in its wise settlement is the key to permanent American independence.

While we heartily approve of the combined action of the foreign ambassadors on the Bosphorus in sheathing the Sultan's sword, which was dripping with Armenians' blood, how could we Americans sit with folded hands and witness the horrid Spanish butcheries in every village of a neighbouring island? Shall Europe or America control Cuba, was a question of far-reaching importance.

During Cuba's historic ten years' struggle, and failure, the patience and patriotism of Americans was sorely tried. Even when the new insurrection began, the people and the government of the United States were inclined to allow Spain fair play and a reasonable time.

The successive campaigns of Campos, Weyler, and Blanco only increased the wretched condition of the Cuban people, and destroyed the American commerce, and threatened the security of the lives and property of Americans resident in Cuba.

A letter of the Spanish minister, grossly reflecting upon President McKinley, and a demand from Spain for the recall of Consul-General Lee at Havana, which was refused, increased the tension in both countries.

On January 25, 1898, the battle-ship *Maine* arrived at Havana on a friendly visit, and three weeks later the ship was destroyed by a floating mine, and 260 Americans lost their lives. A wave of indignation

swept over the land. Instinctively the American people believed that Spanish treachery exploded the mine, and the war fever had risen, so that on March 8th and 9th Congress unanimously appropriated \$50,000,000, "for the national defence."

Congress declared that the people of the island of Cuba are, and of right ought to be, free and independent.

It was further enacted, That the President of the United States be, and he hereby is, directed and empowered to use the entire land and naval forces of the United States, and to call into the actual service of the United States the militia of the several States, to such extent as may be necessary to carry this act into effect.

On April 21, 1898, the Spanish-American war began, the President proclaimed the blockade of the coast of Cuba, and ordered Admiral Sampson's squadron to enforce it, and two days later he called for 125,000 volunteers.

The regular army was rapidly concentrated at Chickamauga, and the volunteers at Tampa, Fla., and elsewhere.

By June 10th, the War Revenue Act of 1898 was passed by Congress.

Soon the Spanish Cape Verde squadron, composed of four ships and three torpedo-boats, under Admiral Cervera, put to sea, and America was on the alert as

to its destination. Was its object to destroy American cities, or the battle-ship *Oregon*, or to enter Havana Harbour? Everybody was in a state of suspense. Sampson's fleet was sent around the eastern end of Cuba, and Schley's fleet around the western end. Before June 1st, Cervera's fleet was "bottled up" within the harbour of Santiago, and brave Hobson, with seven men, sunk the collier *Merrimac* at the entrance of the harbour.

On Sunday morning, May 1st, before dawn, Commodore (now Admiral) Dewey entered the harbour of Manila, and before noon he had destroyed Admiral Montojo's fleet, with a loss to the Spanish of 412 officers and men killed and wounded, with only seven wounded on the American side.

This astonishing and brilliant victory, which electrified the American people, army, and navy, was equalled, if not surpassed, on Sunday, July 3d, by the destruction of Cervera's fleet, and six hundred men killed and drowned, and the capture of nearly two thousand prisoners including the admiral.

The patriotic enthusiasm of July 4, 1898, was perhaps never equalled, except possibly on July 4, 1863, which commemorated the victories of Vicksburg and Gettysburg.

The sudden enlargement of the navy and its achievements delighted Americans and astonished the world. The battle-ship *Oregon* left San Fran-

cisco, rounded Cape Horn, and in six weeks made the voyage of over fourteen thousand miles.

On June 14th an expedition under command of General Shafter, and numbering 815 officers and 16,072 men, steamed from Tampa, Fla., and on June 24th disembarked at Guantanamo Bay, Cuba.

The battles of El Caney and San Juan occurred July 1-3, skirmishing and parleying continuing till July 17th, when the Spaniards surrendered the city and province of Santiago, with twenty-two thousand troops. The victory was won more by the discipline and courage of the men than by the strategy of the generals. The American losses were about sixteen hundred officers and men killed, wounded, and missing.

During the last of July and early in August, active campaigning under General Miles, whose army numbered only 3,415 officers and men, resulted in the capture of Porto Rico, which proved to be the last of the land operations of the Spanish-American War.

The peace protocol, or agreement of rough draft, between the United States and Spain was signed on August 12, 1898. Article I. read as follows: "Spain will relinquish all claim of sovereignty over and title to Cuba." The five other articles treated of Porto Rico, etc.

The Peace and Evacuation Commissions soon began their labours. The Spanish-American treaty

of peace was signed in Paris on Dec. 10, 1898. Article, I. provides for the relinquishment of Cuba, the cession of Porto Rico, and other islands, etc.

On Oct. 18, 1898, the United States flag was hoisted at San Juan, capital of Porto Rico. The evacuation of Cuba by the Spaniards was completed early in January, 1899.

White-haired General Gomez lives to enjoy an effective answer to the oft-repeated and patriotic prayer, "Vive la Cuba Libre."

A COLLEGE VACATION AT THE
FRONT

A COLLEGE VACATION AT THE FRONT.

BEFORE PETERSBURG, VA.,
9th Army Corps, Aug. 28, 1864.

TO THE EDITOR OF THE MERIDEN RECORDER :—
I have not quite forgotten the promise which I made you. "Next week" has come, and I purpose occupying one of its hours in trying to give you an idea of what I have seen, worthy of notice, during my stay here at the headquarters of the Christian Commission. Our tent, covering an area of thirty by twenty feet, is pitched in the edge of a large piece of pine woods, some three miles east of Petersburg, the steeples of which city, five in number, are in full sight from an elevated position on our left. Delegates here carry Petersburg time, which is obtained by aid of good glasses. Close at hand are located, on our left, front, and right, the 1st, 2d, 3d, and 4th Division hospitals, which at the present time are well patronized by sick, worn-out, and wounded soldiers of the 9th Army Corps. This corps saw hard fighting all the way from the Rapidan, and has been kept at hard service without being relieved, occupying the

rifle-pits most of the time since the middle of June. Its duty has been to do heavy mining, make desperate and bloody charges, like that of July 30th, only to lose 5,640 men through mismanagement somewhere among officers, to endure the continual excitement of the whole nervous system, caused by the murderous picket firing which is kept up night and day by the Confederates, to show their hatred of the negro soldier.

The negro soldier: I am glad to speak of the black man as a soldier. He as truly deserves the title as the white braves who have fallen by his side. And more wicked lies could not have been invented than the false stories which have been palmed off upon the Northern people by some New York papers. Call to mind what they said: "If it had not been for the cursed, cowardly nigger, we might have been successful." "They ran like sheep," etc. It has been my pleasure to converse with many of the regimental officers who were in the charge, and all agree that, as raw recruits, these brave black heroes did their duty well; yes, more than their duty, charging when white troops for some reason failed.

Observe another fact. I was at the 4th Division hospital when the wounded coloured soldiers came in, assisted in doing up their wounds, and I failed to find the entrance of balls otherwise than in the front

and sides of the body, the latter caused by the murderous flank fires, which our officers should have prevented. Operating surgeons at the table remarked to me that "it was a noticeable fact that black boys faced the music almost invariably, as shown from the positions of wounds." They should have their reward, of which some cowards at home would deprive them. The truth is, that the bravery of Colonel Thomas's and General Ferrero's brigades is fully equal to that displayed by the coloured troops at Fort Pillow and Port Hudson. Let "honour to whom honour is due" be given even by those cowards at home who have sent out their negro substitutes.

At this station the number of delegates varies from five to ten, as they come and go, on the expiration of their time, — six weeks. The 5th and 15th Corps employ about the same number. The general hospitals, at City Point, where there are usually from four to five thousand sick and wounded, have their wants attended to by some forty delegates. At City Point is also located the base of supplies for the Christian Commission. Each delegate, on arrival at City Point, reports to the general agent, Mr. J. A. Cole, who has control of all the field work of the Christian Commission in the East. The delegate is ordered by him to report to one of the field agents, who immediately assigns him to a certain number of wards, or sections. The first visit of the delegate

among the sufferers is sufficient to elicit all his sympathy. He asks God to give him strength of body, and a willing hand, that he may do something toward supplying these never-ceasing wants of our hospitals.

In the hospitals of Washington alone, there are at the present time fifteen thousand inmates; and there are no less than seventy-five thousand sick and wounded defenders of our country occupying the hospitals in our Eastern cities to-day. Such enormous numbers surprise us; and to supply the vast wants of this great host of invalids taxes heavily the benevolence of the North. Yet how nobly have they of the North responded, through both the Christian and Sanitary Commissions, twins in their errand of mercy.

That which characterizes the Christian from the Sanitary Commission is that all the stores of the former are distributed by men who voluntarily give their services. They are apostles, labouring for apostolic pay, which we are always sure of receiving. Zion's bank never fails to pay its bills. The harder we work the greater the salary. No revenue tax either on these salaries, Christian brothers at home! My dear brother, have you not six weeks' time which you will spend in this glorious work? Here are ministers, with collars and white neckties off, hard at work; school-teachers, students, and others, from all

parts of the North, who have "put their hand to the plough" in earnest. At our table the following States are represented by delegates: Maine, Vermont, Massachusetts, New York, Pennsylvania, Ohio, and Michigan.

Let me speak in brief of the special work of the delegate, and then a couple of incidents. I was assigned to the 4th Division Hospital, where are the coloured soldiers. I will not weary your patience, already taxed, by a description of the horrid sights which I saw as I first entered, at nine o'clock in the evening, the wards of my division. There they lay, with but few wounds as yet dressed, — six hundred wounded black soldiers. "Heroes," said I, "every one of them." Dim candles feebly lighted the vast temple of nature, with its deep sky-blue arch supported by tall and straight pines. Among those pillars lay patient men, crying only for a little water. Such patience I never witnessed. To moisten their parched lips was Christ-like work, indeed. In two days our surgeons had cared for the worst cases; other wounds were dressed by us delegates.

Then comes the special work of the delegate. We visit the wards twice a day. Before leaving the tent we fill haversacks with religious books and papers for the soldiers, learn their wants of body, see that these are supplied by little delicacies as needed, and we always seek to have personal religious conversation.

It surprises us daily to find soldier boys so free to converse concerning the great interests of their souls' welfare. The field is, truly, "white for harvest."

An incident of the war: Two negro soldiers, Thomas and William Freeman, after the first day's battle in the Wilderness, entered a large house which formerly belonged to a Confederate. Slave women were there, who were nearly famished with hunger. The soldiers kindly relieved the old, worn-out women, by emptying their haversacks of rations. Thomas Freeman in return received a quarto family Bible. The book was finely gilded, and held together by a beautiful clasp.

Thomas and William, both being Christians, valued highly the Bible. It took the place of his blankets in his knapsack, where it was carried by Thomas in all his marches down to the line of entrenchments before Petersburg. He went into the charge of July 30, 1864, with the huge Bible on his back; never for a moment would he allow the precious book to be out of his sight. He was seen every day reading from it. He spent much time also in prayer. What implicit reliance he placed in the book, as he charged across that bloody field, only to be shot dead as he reached the fort! His brother William, colour-bearer, is wounded, and, as he plants the colours on the fort, he falls; and while being placed upon the stretcher

to be borne from the field, William begs, amid the rattling of musketry and thundering of artillery, that, in place of his own knapsack, that of his brother Thomas, containing the Bible, be placed upon his own back.

Thus the precious book reached the hospital where I have been at work. William, sick and dying, sold the book for five dollars to the ward-master, of whom I bought it, paying the last five dollars I had by me. On my return I purpose presenting the Bible to Amherst College, Massachusetts, to be kept as a sacred memento of Christian negro heroism, displayed at the desperate and fatal charge of July 30, 1864, on the Confederate works before Petersburg.

The other incident occurred Sabbath evening, the second night after the charge. While caring for the wounded, my attention was attracted by a half-dozen wounded negroes who were singing. I thanked God that his poor servants could sing and be happy, though suffering from Confederate bullets. I caught the following words :

" I wish my Lord would come down,
And take me up to wear the crown !
Oh, my blessed Lord !
Time's going away, why don't you pray ?
And end this cruel war in heaven ;
Oh, my blessed Lord ! "

Of the army of five thousand delegates who served in the Christian Commission of the Civil War 1861-65, all were volunteers, and received little or no pay. Besides innumerable good deeds rendered, and words spoken, more than \$3,500,000 of stores were distributed in the many camps and hospitals.

HOW FINE PAPERS ARE MANUFAC-
TURED

HOW FINE PAPERS ARE MANUFACTURED.*

My first day's work for others, when fourteen years old, was performed in a paper-mill in western Massachusetts, where I learned some Latin in spare moments, and saved enough money to prepare for college.

To give a complete history of paper would fill every number of the *St. Nicholas* for a year. The hornet, whose sharp sting is the terror of children, is the recognized pioneer of paper-makers. His cellular nest, on trees and rocks, is built of material which resembles the most delicate tissue-paper. Weaving must have been suggested by the intricate spider's web, and the building of dams by the skillful beaver.

Man has always been slow to learn from nature. Writing was first done on leaves and stones. In the libraries of London, Vienna, and Copenhagen are carefully treasured palm-leaf manuscripts written by the ancients. The innermost bark of birch-trees answered for paper in India and Germany, and even

* *St. Nicholas Magazine*, August, 1884.

to this day the Indians write upon the leaves of the mulberry, bamboo, and yucca.

Many centuries before Christ, Numa left writings upon the papyrus, whence our name, paper, is derived. This plant, which was revered as sacred by the old Egyptians, grows abundantly in shallow streams and marshes in upper Egypt and Syria. Bruce found it growing in the river Jordan, and noticed a curious fact, that it always presented the sharp, angular side of its pear-shaped stem to the swift current. The stem is eight or ten feet high, two inches in diameter, and crowned with a fringe of hair-like leaves, which circle a blossom of slender spikelets. Beneath the brown sheath which envelops the root-stalk of this dark green plant lie other sheaths which are very transparent. These, when split into thin leaves and dried in the sun, were glued together, and formed the roll of papyrus, on which many of the ancient writings have come down to us. This paper was both flexible and durable. Specimens from Pompeii can be seen in the museum at Naples. In the fifth century papyrus paper, of which many varieties existed, was largely manufactured at Alexandria, and ranked high in the commerce of nations. Its use continued until about seven or eight centuries ago.

In China the "four most precious things" are the paper-plant, ink and its saucer, and the brush.

Eighteen hundred years ago, the Chinese, acting upon the wasp's suggestion, made paper from fibrous matter reduced to pulp. Now, each province makes its own peculiar variety from the innermost bark of different trees. The young bamboo, which grows six or eight inches in a single night, is whitened, reduced to pulp in a mortar, and sized with alum. From this pulp sheets of paper are made in a mould by hand. The celebrated Chinese rice paper, that so resembles woollen and silk fabrics, and on which are painted quaint birds and flowers, is manufactured from compressed pith, which is first cut spirally, by a keen knife, into thin slices, six inches wide and twice as long. Immense quantities of paper are used by the Chinese for a great variety of purposes. Funeral papers, or paper imitations of earthly things which they desire to bestow on departed friends, are burned over their graves. They use paper window-frames, paper sliding doors, and paper visiting-cards a yard long. It is related that when a distinguished representative of the British government once visited Peking, several servants brought him a huge roll, which, when spread out over the large floor, proved to be the visiting-card of the Chinese Emperor.

Early in the Christian era, the Japanese employed silk-faced linen, and also wood shavings, for writing material. In 610 A. D. they began to make paper

from vegetable fibre, and their ingenuity is indeed marvellous. From several hundred varieties of paper they manufacture lanterns, candle-wicks, hair-pins, umbrellas, artificial flowers, fans, handkerchiefs, hats, sword-proof helmets, telescope tubes, water-proof underclothing, etc. A formal Japanese poet uses in writing, for poetry or songs, four distinct kinds of paper, specially designed. Imitation leather, which we have just begun to make, is old-fashioned with them. The skill of the Japanese in handling long fibres without injury enables them to make their parchment-like paper very tenacious and durable.

It is claimed that the Mandarin Teailien invented rag paper. Whether this is true or not, the Chinese secret was early known in Persia and Arabia, and gradually the Europeans began and rapidly improved the art of manufacturing paper. Parchment, prepared sheepskin, and vellum, or clear calfskin, were laid aside. Eight hundred years ago Spain made paper from cotton, and in 1302 a finer quality from linen. In the fourteenth century France, Germany, and Italy became quite skilled in the art. Queen Elizabeth knighted Spielman, a German, who established the first paper-mill in her kingdom. The business in England was greatly increased by the Huguenots, whom Louis XIV. drove out of France. The paper-mill built near Chester Creek, in Dela-

ware, in 1714, was probably the first paper-mill in the United States. The owner supplied paper to Benjamin Franklin. The old hand process can still be seen there.

Many years ago, in New England, laws were made which required people to save carefully all paper material, and bellcarts went through the cities ringing for rags. Yankee tin-peddlers drove their red wagons through village and town, loaded with pails, brooms, and shining tin-ware, which were exchanged for big sacks of odds and ends saved in scrap-bags. Many a successful merchant and banker was originally a keen witted tin-peddler, who learned human nature in the homes of the people, and constantly viewed new scenes and gathered fresh experience as his old horse jogged along.

Until 1750, paper material was reduced to pulp in a crude mortar; but in that year this tedious process was superseded by a machine run by windmills, a Dutch invention. Its essential principles were those of the modern paper-engine.

In the paper-mills of to-day we see scores of women and girls removing from the rags all hooks and eyes, buttons, pins, pieces of woollen and silk, and cutting the rags into narrow strips on sharp scythes fixed to tables. These strips are carefully sorted into three or more baskets. A revolving wire sieve removes the dust, and the rags are put into

a huge iron or wooden boiler, with caustic soda and lime, which wash out the grease and dirt. In the case of print-papers, or wood-chips, the ink is removed from one and the sap and resin from the other.

The rags are then ready to be converted into pulp. The huge machine which is used is called an "engine," and was invented in Holland. It is quite unlike a stationary or railway engine. It is an elliptical tub, separated by a partition into two chambers. Under the curved box-cover, a cylinder filled with over fifty dull steel blades, and attached to the shaft, revolves rapidly over a bed of steel bars. The blades draw out the fibre of the rags by a kind of shearing action. The first work or process of the engine is to partially reduce and wash clean the material, and requires from three to four hours. This cleansed material is called "half-stuff," and is emptied into vats, where it is bleached perfectly white by chloride of lime. Next, the beautiful snow-like, half-beaten stuff is again put into the engine, and slowly reduced to fine pulp, which, when mixed with water, resembles cream, the natural yellow colour being changed to a bluish tint by the use of a little ultramarine.

The pulp is now ready to be converted into paper by a series of ingenious contrivances, which, placed in a row, makes a very long machine. This paper-

making machine consists of a screen, vat, wire cloth, press or felt rollers, dryers, calenders, reels, and slitters.

In 1798, Louis Robert, a Frenchman, substituted for the old-fashioned hand mould an endless wire web, by which paper of great width, length, and uniform thickness could be made. His valuable invention was much improved by the Messrs. Fourdrinier, wealthy booksellers of London, and has been further improved by Americans.

Let us examine a complete paper-making machine. The receiving vat on the right of the machine is constantly supplied with prepared pulp by a pump, all imperfections being removed by the screen. A stop-cock or other arrangement regulates the supply of pulp, thus controlling the thickness of paper to be made. The pulp, diluted with water, flows over an apron upon an endless wire cloth, or web, which has from 3500 to 5000 holes to the square inch. As the water escapes through the wire cloth, the fibres of the pulp are gently shaken together.

A roller of fine wire network imprints the water-marks which give the name "woven" paper; when the wires are stretched only one way, it is called "laid" paper. The imprint of a fool's cap and bell, much used formerly, gave the name "foolscap" paper.

The newly formed wide sheet of wet paper passes

to an endless felt belt, by which it is conveyed between iron press rolls, around a dozen or more steam dryers, again around smooth calenders, and then upon the reels, finally through slitters, into a sticky liquid, and between knives; and, at last, the long, soft paper, freed from water, is smoothed, sized, and wound on reels.

Paper is thus made so rapidly that, if the roll were allowed to run off from the machine in a continuous strip, a child could not keep up with a marked point on that strip, except by running. In the finishing-room the paper is again smoothed, cut into sheets, ruled, sorted, counted, folded, stamped, and put up in reams, quarter-reams, and half-reams, for book or letter use.

Coarse papers are made on a unique revolving cylinder, which gathers the pulp on its surface of wire work. It was invented in 1822 by Mr. John Ames, of Springfield, Mass. Formerly, several weeks were required to complete the slow hand process of changing crude material into finished paper. Now it can be accomplished in a single day, at one third the old-time cost.

Poplar, spruce, and basswood are used in immense quantities for making paper pulp. Even the banana and palmetto yield excellent fibre. Of late, a soft and transparent quality of paper has been made from common grasses. Bank-note paper is made from linen,

silk fibre introduced to prevent counterfeiting by making certain markings in the paper which can not easily be imitated. Many bank-bills have red silk threads running along the edges and across the ends. Letter paper is made from linen and cotton mixed; printing paper chiefly from wood-pulp, — rags being added for book and magazine paper, like that used for *St. Nicholas*. Waste papers, straw, old ropes, jute, manilla, and like substances make common papers.

One-third of the paper consumed in the world is made in the United States by one thousand or more mills, each averaging about two tons daily.

The four thousand paper mills in the world make annually a million tons of paper, one-third of which is used for newspapers.

Holyoke, on the Connecticut River, is called the "Paper City." It turns out daily more than one hundred two-horse wagon-loads of beautiful papers of varied tints. At Castleton, on the Hudson River, and elsewhere, millions of postal cards are made each year for the government, out of wood-pulp. Paper has become as great a necessity as iron, and is employed in fully as many ways. Scores of railways use paper car-wheels. Stoves and chimneys, even, are made of paper. It is used for pencils, for lumber (in imitation of mahogany), for roof-tiling, jewelry, bronzes, false teeth, water cans, row-boats, flour bar-

rels, powder kegs, clothing, shoes, collars, blankets, and carpets. A fashionable New York lady once gave a party, at which the women wore paper dresses. A paper house was exhibited at the Sydney Exhibition, the doors, floors, and furniture being made from paper. In Sweden paper thread is made. Thin silk paper, with tasteful designs painted in oil, pasted on common window-panes, makes an admirable imitation of stained glass. Paper dipped in chloride of cobalt makes the French "barometer flowers," which are blue in fair weather and change to pink on the approach of rain.

From all this it will be seen that a thorough knowledge of chemistry, and of the principles of mechanics, is necessary for the successful manufacture of paper, and that paper-making is one of the greatest industries of modern times.

ENTERTAINMENTS FOR THE PEOPLE

ENTERTAINMENTS FOR THE PEOPLE

THAT the world, tired with its struggle for daily bread, needs and must have amusements, is evident to all. That the world can be led to prefer elevating amusements to those low or common, must be equally evident. Cheap theatres and museums are opened on every hand to make money. Are Christian people working with the same energy to make good citizens?

The tendency of the age is toward education, and our amusements should be in harmony with this aim. London publishes millions of penny books for her people; penny biographies of leading men and women to teach patriotism and honour; penny histories, penny astronomies, arithmetics, and dictionaries.

When Lady Brassey's "Voyage of the Sunbeam" was brought out at twelve cents a volume, one hundred thousand copies were soon sold. When, with Sir Thomas Brassey as president, we find seventy-five thousand men belonging to the "Workingmen's Club and Institute Union" in London, associated for "mutual improvement by lectures, libraries, and

recreation," we have a glimpse of William Morris's
 "Earthly Paradise That Is to Be:"

"Then a man shall work and bethink him, and rejoice in the
 deeds of his hand,
 Nor yet come home in the even too faint and weary to stand.

"Men in that time a-coming shall work and have no fear
 For to-morrow's lack of earning and the hunger-wolf a-near.

"Oh, strange, new, wonderful justice! But for whom shall we
 gather the gain?
 For ourselves and for each of our fellows, and no hand shall
 labour in vain."

London's large colleges for workingmen and women are doing incalculable good. When Maurice, the friend of Tennyson and Ruskin, opened his college, the world said: "There is no use in this. Workingmen prefer the public-house. But Maurice, with his great heart, said: "Give them a chance, and see if they will not come," and now, in the institution which he founded, eight hundred blacksmiths, carpenters, and day labourers are studying French, Greek, science, and political economy, together with the common branches. The workingmen's clubs of New York, Boston, and Philadelphia are steps in the right direction.

Night schools all over the country (and they should be free of charge to the child of eight as to the man of eighty) will go a long way in solving our socialistic

problems. When people spend two hours of each night in study, there is little time or desire for saloons or questionable amusements. When a few more men like Enoch Pratt, of Baltimore, give a million dollars to found free public libraries in each of our cities, we shall have furnished the best kind of "educational amusement" to our people.

Capitalists on both sides of the water are making this a practical matter. In the large engineering works of Messrs. Tangye, Birmingham, England, where two thousand men are employed, when they gather at dinner a twenty minutes' talk is given by prominent persons twice a week. The men often suggest the topic, either some political or general subject. Of course it costs the Tangyes something to help make their men intelligent, but it pays in their increased devotion to their work. How many strikes would be avoided if every large firm in this country thought enough of its employees to give them, twice a week, bright, crisp talks on the battles of our Civil War, the care of the body, or a racy sketch of some noble man or woman? The Tangyes also provide a library, and have evening classes. Several firms in England have purchased stereopticons, and provide illustrated lectures for the families of their workmen, that these, who can travel rarely, may understand other countries than their own. Thus their minds are broadened, and they are made happier.

The firm of P. Lorillard & Co., Jersey City, has done an admirable thing in giving to its four thousand working people a library with ten thousand volumes, a large reading-room with several hundred chairs, twenty-five tables for various games, and one hundred newspapers and periodicals, with free pens, ink, paper, and envelopes. What need to go to a saloon when warm, cheerful recreation and reading rooms are provided?

Andrew Carnegie, the Pittsburg millionaire manufacturer and author, has purchased a library building worth \$30,000 for his workmen, and given a handsome sum to provide the necessary books. Recently he has added \$5,000,000 for his workmen. Some of the large cotton mills and rolling mills of the country have done the same good work.

Warner Brothers, corset manufacturers, have erected a building in Bridgeport, Conn., costing \$35,000, for the free use of the one thousand girls employed in their factory. The building is seventy feet square and three stories high.

The first story is devoted to a restaurant, where good meals are furnished at cost. The second story contains a large reading-room and library, conversation-room, music-room, bath-rooms, and lavatory. The third story contains a large hall, seating six hundred, a small hall, seating one hundred and fifty, and class rooms, where evening classes in singing,

penmanship, drawing, bookkeeping, fancy needlework, etc., are taught. Wiser to use first floor for halls, etc., and upper floor for restaurant.

Concerning the experiment made in Cleveland, Ohio, for the educational amusement of the people, by the Educational Bureau, Rev. Washington Gladden, D. D., has written so ably and clearly in the *Century Magazine* for January, 1885, that I will quote his words :

"The duty of the Church with respect to popular amusements is not done when it has lifted up its warning against the abuses that grow out of them, and laid down its laws of temperance and moderation in their use. It has a positive function to fulfil in furnishing diversions that shall be attractive and, at the same time, pure and wholesome. This cannot be done, as we have seen, by the churches as churches, but it can be done by men and women into whom they breathe their spirit, and whom they fill with their intelligence and good-will.

"When I say that it can be done, I speak of what I know and testify of what I have seen. The most remarkable success in the way of popular entertainment that I have ever witnessed has been achieved along the line which I have just been pointing out. And inasmuch as an ounce of experience is worth a pound of theory, I can do no better than to tell the story of one successful experiment in this field.

"The Cleveland Educational Bureau has closed its third season and issued its annual report. This enterprise owes its existence and its success to many men and women of good-will, who have heartily co-operated in sustaining it, but chiefly to the ingenuity and enthusiasm of Mr. Charles E. Bolton, its secretary and manager, to the literary skill and facility of Mrs. Sarah K. Bolton, his wife, and to the liberality of Mr. W. H. Doan, the treasurer, who owns and rents to the bureau for a nominal price the People's Tabernacle, in which its work is done. The plan of operations is varied slightly from year to year, but the general design can be clearly indicated.

"The 'People's Tabernacle' is a plain but capacious assembly-room, built on leased land, and devoted to educational and religious purposes; it boasts few decorations, and not much upholstery; but it is clean and well ventilated, and brilliantly lighted by electricity. A gallery runs around the hall, and the platform is pushed forward so near the centre that the audience of four thousand or forty-five hundred hears a distinct speaker without difficulty. The platform is usually covered with a profusion of potted plants, and handsome bouquets of cut flowers in baskets and vases wait to be bestowed upon the performers at the end of the entertainment.

"The manager describes his evening's programme as furnishing a 'four-fold intellectual treat.' Very

little is said about diversion in connection with this enterprise ; it is not called a bureau of amusement ; it is an educational bureau. The appeal is wisely addressed to a higher principle than the mere craving for diversion ; and the recreation is incidental and secondary, as it ought always to be. If the bureau announced itself as a purveyor of amusement, it would not amuse the people half so successfully as it does. The play has a better relish when it is brought in as the sauce of a more solid intellectual repast. It is a high compliment to the working people of Cleveland that is paid by the managers in the invitation to devote ten of their Saturday evenings, every winter, to the exercises of an educational bureau. The magnificent success of the entertainment shows how well the compliment is deserved.

"The 'four-fold intellectual treat' begins usually at a quarter before seven, with an excellent orchestral concert. During this time the audience is assembling, and by seven o'clock the building is packed to the walls. No reserved seats are sold ; the motto is, 'First come, first served.' Early comers are not even allowed to reserve seats for their friends. A large force of neatly dressed ushers assists in seating the audience. No single tickets are sold before a quarter-past seven ; season ticket holders have the exclusive right to the house up to that time.

"The orchestral concert ends with a grand chorus

by the entire audience, which rises and joins, under the lead of a precentor, with the orchestra, the organ, and a trained choir, in singing one of the national hymns.

"Following this, at precisely a quarter-past seven, is the 'lecture-prelude,' which is generally an off-hand address of half an hour on some scientific or practical subject. Among the topics treated in these lecture-preludes, I find these: 'The Pyramids,' 'Architecture Illustrated,' 'Wonders of the House We Live In,' 'Microscopic Objects Magnified,' 'The Terminal Glacier, Illustrated,' 'Wrongs of Working-men and How to Right Them.' Next is a 'singing-school,' in which a vigorous precentor, aided by the orchestra and the choir, leads the great congregation for ten or fifteen minutes in singing national hymns. The precentor drills them finely, singing-master fashion; he tells them how he wants the piece sung, and gets them to sing it as he wishes; he divides them into choirs, and makes them sing antiphonally; they have the words and music in their hands, and are able to join, as most of them do, heartily in the great chorus.

"After this comes the principal attraction of the evening, in the shape of popular lecture, dramatic reading, debate, or concert, which begins at eight o'clock precisely, and always closes promptly at half-past nine. Mr. Bolton himself has contributed

several lectures of travel, finely illustrated with the stereopticon. A debate on Protection *vs.* Free Trade, between Prof. W. G. Sumner and Prof. Van Buren Denslow, filled one evening last winter, and aroused the deepest interest. Another debate, between Mrs. Livermore and Professor Denslow, on the question whether women ought to vote, closed the recent course with great *déclat*. It is safe for the manager to promise any speaker who has something worth saying a cordial and appreciative hearing.

"During the last season, five illustrated lectures on the art of cooking were delivered by Miss Juliet Corson to an average audience of three thousand women. These lectures were free to the holders of season tickets; the admission fee to those not members of the bureau was fifteen cents, or fifty cents for the course. It is difficult to understand how Miss Corson could make herself intelligible to so large an audience, but we learn that her lectures were very successful, and that they were received with great enthusiasm. 'Whole carcasses of animals,' says the report, 'were cut into suitable pieces on the platform, and all kinds of plain cooking were done.'

"The bureau also furnished during the summer ten open-air evening concerts on the public square, which were enjoyed by many thousands of people.

"Another important feature of the work is the circulation of useful literature. Each person who

attends the winter's entertainments receives on every evening a little book in paper covers, printed by the bureau for its members. Four thousand of these little books — a whole wagon-load — are distributed every evening. They are continuously paged, and the advertisements upon the fly-leaves can be removed for binding. At the close of the course a Cleveland binder puts the series of ten pamphlets into neat red muslin covers for thirty-five cents. Each pamphlet contains about forty pages, and is devoted to the popularization of science, or to some sort of useful information. The series for 1882-83 includes a 'Short History of Modern France;' a 'Brief History of Science;' a 'Sketch of the History of the United States;' 'The Story of the Steam Engine;' an excellent little archæological essay on 'Early Man,' well illustrated; a series of brief biographies of 'Great Artists;' a crisp and sensible essay on 'Secrets of Success' (of which twenty-five thousand extra copies were distributed), and other similar matter. Each pamphlet contains also two national hymns sung by the great chorus on the evening of its distribution, and the programme for the evening.

"For all this, how much are the patrons of the bureau required to pay? The season ticket which admits to the ten 'fourfold entertainments' on successive Saturday evenings, comprising the ten orchestral concerts, the ten 'singing-schools,' the ten books,

and the ten 'special attractions' (popular lecture, elocutionary readings, debate, or grand concert), costs for this year one dollar and a quarter, or twelve and a half cents for each evening. These tickets also admit to the course of lectures by Miss Corson, and from the proceeds of their sale the summer evening concerts are provided.

"In only one sense is the bureau a gratuity. A great amount of unrewarded labour is performed in its behalf by the ladies and gentlemen who are directly interested in its management; and many of those who take part in its entertainments volunteer their services. The 'lecture preludes' are generally given by gentlemen of the city or the vicinity, who are glad to serve the bureau, and whose carefully prepared addresses have been highly appreciated by the audience. Most of the 'special attractions,' however, come from a distance and cost money. But the sale of more than four thousand season tickets pays the expenses of the bureau, and leaves a balance in the treasury at the close of every season. The people get a great deal for their money, but they have the satisfaction of knowing that they pay for what they get — all but the good-will and kindly effort on their behalf put forth by their employers and their neighbours, which money will not buy.

"I have spoken of the audience as composed mainly of workmen and their families. Last year

forty-one hundred season tickets were sold in Cleveland. When the work was begun, Mr. Bolton visited all the great manufacturing establishments, obtained permission from the managers to have the men collected ten minutes before commencing work, and then, in a brief speech, explained to them his plan. Tickets were placed on sale in the offices connected with the shops, the employers heartily coöperating. The interest of the mechanics was thus enlisted in the beginning, and although about four hundred school-teachers and a sprinkling of the dwellers on 'Euclid Avenue' may be counted in the evening audiences, they still consist, for the most part, of working people and their families. Mr. Bolton says that many of the mechanics carry their suppers to their shops on Saturdays, that they may be early at the Tabernacle in the evening. Few signs of this are visible from the platform, however; the audience seems to be clad in its Sunday clothes. It would be hard to find anywhere a company whose attire was neater, whose faces were brighter, whose behaviour was more decorous, or whose appreciation of wit or eloquence was keener. It was my great pleasure to look into the faces of these people for an hour and a half, while two accomplished lady readers were entertaining them, and a more responsive audience I have rarely seen. It was an exquisite pleasure to sit and watch their movements, to note the eagerness

with which they hung upon the lips of these gifted women, and the relish with which they listened to the interpretation of the masterpieces of English poetry and humour recited to them, and to feel the surges of pure and strong emotion that swept over the throng and broke continually at my feet in a sympathetic sigh, or in happy and wholesome laughter. That it is an extremely well-behaved audience will be understood when I say that it has abolished encores and the pandemoniac practice of stamping the feet, and — *ecce signum!* — that it keeps its seat respectfully until the performance is concluded.

“It was impossible not to reflect that a large share of these thousands would, if it were not for this bureau, be spending their Saturday evenings in such places of amusement as might be open to them, admission to which would cost them three or four times as much as they pay at the Tabernacle; that the great majority of these would be places where their minds would be debauched and their morals damaged; where they would find a temporary excitement, to be followed by disgust and *ennui*; where they would receive no wholesome impulses and gain no new thoughts; and where they would often have their prejudices roused and their hearts inflamed against their more prosperous neighbours; for the cheap theatre is one of the mouthpieces of the communist and the *petroleuse*. Now they are brought

together in this great assembly that is itself an inspiration, and in its decorum, its self-restraint, and its good nature an incarnate gospel; good music charms their ears; a profusion of flowers on the platform delights their eyes; they join in the national songs, and their best emotions are aroused; they listen to the kindling words of poet or orator or teacher, and are instructed and quickened; they rejoice in this ample and admirable supply of one of their deepest wants, and recognize the benevolence that has devised it, and their hearts are filled with a kindlier feeling toward all their fellow men. They go home sober, with all their week's earnings in their pockets, and a little book to read in which they will find something to divert and enlighten them; and they are much more likely to be found in church the next day than if they had spent the Saturday night in the beer-garden or at the variety show. A free gospel service is held in the Tabernacle every Sunday afternoon, and the attendance upon this service has greatly increased since the Educational Bureau was organised.

"I have endeavoured to set down a plain account of what seems to me a most wise and noble Christian enterprise. A charity it is not, in the ordinary acceptation of that word, and it is all the more charitable because it is not a charity, and because it pays its own expenses; but it is one of those effective

applications of Christianity to the social needs of men that we may expect to see becoming more and more common in the future. It is doubtful whether any revival services held in Cleveland during the winter help so efficiently in the Christianization of the people as do the entertainments given at the Tabernacle. Applied Christianity is what the world wants, and this is Christianity applied to one of the great interests of human life.

"What has been done in Cleveland can be done in every city and large town in this country. The scheme may well be varied; the application of the principle calls for ingenuity and practical sense; methods that are successful in one city would need modification to fit them to the conditions of another; but the purpose is easily understood, and the main idea can be realized with the expenditure of very little money, wherever there are some men of good-will to give to the enterprise the necessary thought and care. It cannot be done without work; nothing important is accomplished without large expenditure of time and effort; but it is work that brings in a large return.

"Some of the conditions of success in such an enterprise may be readily named:

"1. A large and cheerful hall. That the prices may be low, the audience must be large.

"2. A capable manager. Enthusiasm, good tem-

per, fertility of resource, and sympathy with the people are among his qualifications.

"3. Variety in the entertainment, with no hitches or wearing pauses between the parts. The movement must be swift and sure.

"4. Punctuality and business-like thoroughness in the management. Begin and end on the minute. Give exactly what you promise, or, if that be impossible, what will be recognised as a full equivalent.

"An institution of this nature, wisely managed, would quickly prove itself to be a seminary of sacred and benign influences, and an agency more potent than many laws in the preservation of peace and the reformation of the public morals."

We now have in Cleveland a new and handsome "People's Tabernacle and Music Hall" costing about \$80,000, forty-four thousand of which sum has been given by Mr. W. H. Doan. The building is large, cheerful, and attractive, has double galleries, and will seat five thousand persons.¹

Here, cheap, but the best entertainments will be given, the very large hall making it possible to pay expensive talent, with low prices for tickets.

We need in each large city what is being made practicable in Boston, Worcester, Lawrence, and North Easton, Mass., viz., free lecture courses for the people. John Lowell, Jr., of Boston, dying at

¹ Recently burned.

thirty-seven, was the first to begin this noble work. In his will, he left a quarter of a million dollars, half of his fortune, to "provide for regular courses of free public lectures upon the most important branches of natural and moral science, to be annually delivered in the city of Boston." None of the bequest could be used for buildings, and ten per cent. of the accumulation of the fund was to be set aside annually to continue it.

The Lowell Institute course of lectures was opened December 1, 1839, since which time from six to ten courses have been given yearly, by some of the most distinguished persons in Europe and America, to large audiences. Free instruction in drawing is given to mechanics and artisans, and a course of lectures for advanced students in art at the Institute of Technology; also practical designing in patterns for prints, silks, paper hangings, carpets, etc.

The Lowell fund also sustains a "Teachers' School of Science," with lectures in physics, geology, physiology, and the like, open to public school teachers on Saturday afternoons.

Worcester, Mass., in its County Mechanics' Association, has had two courses of five entertainments each yearly since 1880, at an average annual expense of \$2,104. For the six years previous a single course was given each year, with six or seven lectures.

Lawrence, Mass., has a fund of \$100,000 left by

Judge White for the benefit of the industrial classes. A course of not less than six lectures is given each year on good morals, industry, economy, etc. The beautiful city hall, seating two thousand persons, is always crowded at these entertainments. The fund also provides \$1,000 for the purchase of books for the public library.

At North Easton, Mass., the Oakes Ames School Fund has furnished during three years 109 free lectures on science, physiology, travel, and other topics, and the large hall has been crowded to hear them. The trustees have \$3,500 to use yearly for the benefit of young people especially. Beside the lectures, an industrial school is maintained, magazines such as *St. Nicholas*, *Wide Awake*, *Youths' Magazine*, etc., are provided, and other expenses met for the comfort of the children not coming within the regular school appropriation. No wonder the press of that town says :

"The influence and educational power of such a series of lectures and course of instruction in a community cannot be measured or properly gauged. From these lectures a stream of knowledge has gone out which we believe will bear fruit in the future for the good of the community. Of the many good things which have come from the liberality of Mr. Ames, this we believe has been the most potent for good of any."

New York State and city are now carrying out an admirable plan of free lectures for the people. The State appropriates \$25,000 annually that free lectures may be given "in natural history, geography, and kindred subjects, by means of lectures and pictorial representations, to the common schools of each city and village of the State that has, or may have, a superintendent of free common schools." These lectures may also be given "to artisans, mechanics, and other citizens."

This grew largely out of the excellent work done by Prof. Albert S. Bickmore, of the American Museum of Natural History, Eighth Avenue and Seventy-seventh Street, Central Park, N. Y. His valuable illustrated lectures were given the thousands of teachers and others on Saturday afternoons.

Each normal school of the State, and each city and village superintendent of schools, may be provided with stereopticon, all needed lantern slides, and the printed lectures of Professor Bickmore.

The Board of Education of the city of New York, under the directory of Dr. Henry M. Leipziger, is giving each winter hundreds of free common sense lectures, part illustrated, for the people throughout the city. These lectures, given in the school buildings and convenient halls, are crowded, and the State will reap a hundred-fold as the practical work goes on.

As an antidote to communism, nihilism, and anarchy, — all leading to despotism, — which under the ægis of liberty are being advocated from scores of little halls in all our great cities, we need large, cheerful halls, people's forums, where clear truths on important questions may be taught the citizens of America. One hundred cities require one or more halls that will seat from two to five thousand persons each. These cities should have a fund of from fifty to two hundred and fifty thousand dollars, the income of which should be devoted, annually, to securing the ablest thought of this and other lands.

Finally, we need a complete organisation, called, perhaps, "The American Lecture League," which shall embrace the managers of lecture courses in our cities, and all worthy and able lecturers.

We hear of labour and political leagues; why not an American Lecture League?

THE FLAGS OF ALL NATIONS

THE FLAGS OF ALL NATIONS.

NAPOLÉON THE GREAT presented his victorious armies, for regimental standards, golden eagles costing two thousand dollars each, to which were attached richly embroidered silk ribbons. It is said that in the late Franco-German war two hundred of these coveted prizes were captured by the army of Emperor William. The French have cared little for flags since their former glory sunk in fire and blood at Sedan.

The French national tricolour, decreed February 15, 1794, reverses the order of our country's colours, and places them vertically in equal bands; the hoist at the staff being blue, the centre white, the fly red. On the ocean, no flag is more beautiful, or so easily recognised. It is the union of the blue banner of St. Martin, the red banner of St. Denis, and the "cornette blanche," colours that have been held for centuries as national emblems of France. The blue cap or hood of St. Martin was carried as a sacred and victorious standard for centuries by the ancient Kings of France. The story is related that St. Martin divided his cloak with a naked beggar perishing

with cold at the gate of Amiens. The Romish Church made him its first saint. St. Martin's standard was succeeded by the famous oriflamme of St. Denis, to whom an angel is fabled to have brought it. This banner was made of red silk, in which flames were worked with golden threads. The fly or end was cut into five points, which were adorned with green silk tassels. Church banners dedicated to martyrs were red, which indicated suffering, and green, hope.

The "cornette blanche" succeeded the oriflamme over three hundred years ago. This plain white banner was emblematic of the purity of the Virgin Mary. This flag, adorned with a picture of the crucifixion, was borne by the heroic Joan of Arc. From King Clovis to Charles X. the fleur-de-lis (flower of the lily) was the device of the French royal family, and a legendary tale is that a white banner embroidered with golden fleur-de-lis came from heaven to Charlemagne. At the time of the Revolution, however, the tricolour, as an emblem of liberty, was reproduced by accident. The Citizen Guard at first wore the red cockades, the ancient colours of Paris, and afterward added the white of the Bourbon flag.

I recall no more impressive spot in France than the grand tomb of Napoleon I., located under the lofty dome of the Hôtel des Invalides in Paris. On

every side hung flags and standards as witnesses of the valour of victorious armies, every member of which, with their great chieftain, lie in the grave. To-day, the number of these battle-worn flags is small. On the night of March 30, 1814, just before the entry into Paris of the allied armies of Europe, more than sixteen hundred trophies of Napoleon's triumphs, — banners surmounted with Austrian, Prussian, and Russian eagles, with the sword of Frederick the Great, — were burned in the courtyard. It has been said that the ashes were mixed with wine which the veterans drank to the health of their exiled master.

The southeast of Britain was conquered by Julius Cæsar, B. C. 55, who sent to the Roman Senate the standards of seven British kings, on which were pictures of animals of the several provinces. After the evacuation of the Romans, the Anglo-Saxons, about A. D. 449, entered England, bearing the white horse of Odin on a beautiful ensign. The Danes, bearing a raven on their standard, conquered England A. D. 1000. Sixty-five years later, William of Normandy floated from his ship the white consecrated banner of Pope Alexander II., and landing, won the great battle of Hastings and became conqueror of England. The Edwards and Henrys fought under banners that represented the three patron saints of England: St. George, St. Edmund the Martyr, and St. Edward

the Confessor. Richard I. bore on his banner a star and crescent, the star of Bethlehem, victorious over the Turks, also the motto "*Christo duce.*" In the third crusade he carried a white Latin cross, and the nations that followed him bore France—a red, Flanders a green, Germany a black, and Italy a yellow cross. When Richard assumed the title of King of Jerusalem, he hoisted the banner of the lion of that holy city, the badge of David and Solomon; hence his surname, "*Cœur de Lion.*" A fine equestrian statue of Richard Coeur de Lion stands in front of the English Parliament buildings. The three lions or leopards on the royal banners of England are taken from the seal of Richard.

The banner motto of Edward III. was "*Dieu et mon droit.*" He instituted the Order of the Garter, the honours of which were shared at first by the queen and wives of the knights. Their rich banners are seen in abundance over their stalls in St. George's Chapel at Windsor; those of the Knights of the Bath in Henry VII. Chapel, Westminster Abbey. The origin of the white and red roses of York and Lancaster, which adorned the banners of those contending families in so many terrible battles, and now appear on so much of English architecture, occurred as follows: Somerset and the Earl of Warwick, to settle a great dispute, plucked one a red rose, the other a white one, and called upon their followers to make

known their preference by plucking either a red or a white rose. Fatal colours indeed. The bloody strife did not cease till the marriage of Henry VII., a Lancastrian, to his cousin Elizabeth of York, when red and white roses entwined were borne in the marriage procession. Hence the parti-coloured flower which the horticulturists forced into an act of loyalty is called the rose of Lancaster and York, and the rose became an emblem of England.

The great banner displayed at the funeral of Oliver Cromwell bore his motto, "*Pax quæretur Bello.*"

Equally interesting is the history of how the thistle came to be the Scotch emblem. About 1010 the Danes invaded Scotland and attempted to storm Stain's Castle. At midnight, as they moved slowly and barefooted across a dry moat overgrown with thistles, suddenly their cry of pain from bruised feet awakened the sleeping sentinels and the soldiers, who put their enemy to flight. Thus the thistle preserved Scotland, and Burns tenderly alludes to it :

"The rough burr-thistle spreading wide
Among the bearded bere,
I turned my weeder-clips aside,
And spared the symbol dear."

While waiting for the mail in the capacious harbour of Queenstown, I remember there to have seen for

the first time the modest shamrock so fondly loved by Irish people. It readily brought a dollar, which gladdened the heart of a young characteristic Irish woman. A monkish historian tells this legend: About 440, St. Patrick was preaching in a field to Irish pagans, of God and the Trinity, when a doubting chief inquired how one could be in three. The preacher plucked from the green sod a modest tri-foil and said to the simple people, behold one in three. The chief, convinced, was baptised with his followers. So the pretty shamrock was adopted as a token of belief in Christianity. A harp, an ensign of Hibernia, the patroness of Ireland, appeared on the old standards of Irish monarchs called "bards," and Queen Elizabeth assumed both the shamrock and the harp, the green field being emblematical of hope.

The union flag of Great Britain, a religious banner, consisted of the union on a blue field of the red Latin cross of St. George and the white cross of St. Andrew; symbolizing the union in 1606 of England and Scotland. In 1801 Ireland came into the union, and the so called red cross of St. Patrick (similar shape as St. Andrew's cross) was added. The "Union Jack" is a diminutive of the union flag. Thus we have the "red meteor flag of Old England," an ensign worn by every merchant-ship of Great Britain and Ireland.

During the International Sunday-school Convention, held in London, June, 1880, the American dele-

gates enjoyed a fine display of British colours at the assemblage of Sunday-school scholars on the grounds of Lambeth Palace. When the Princess of Wales, their five pretty children, and the King of Greece drove into the grounds, the royal standard uplifted, was beautiful with its rich colours and lions and harps, and the ringing voices of twenty-five thousand children told of their patriotism.

The British people love their flag intensely. One of their sergeants, shot down and overrun in battle, closed his teeth upon the loved banner, which the enemy cut away, leaving a portion between his teeth, fixed in death. Ever since, in memory of the loyal colour-sergeant, new flags for his regiment are made with that little piece sacredly cut out. Under Queen Anne's reign, an apprentice boy to a tailor in the Isle of Wight ran away and joined an admiral's ship, as a volunteer. In the fierce action which followed between the English and Dutch fleets, the ships were engaged yard-arm and yard-arm. The tailor boy inquired of a sailor how long the fight would continue. "Till the Dutch flag is hauled down," was the reply. Whereupon the brave boy climbed up the mast of his own ship and along the locked yard-arms to the top-gallant masthead of the Dutch ship, and, seizing the enemy's colours, returned to the deck of his own ship. The English cheered, the Dutch left their guns, their ship was boarded and captured, greatly to the amaze-

ment of the Dutch admiral. Well-earned and rapid promotion finally made the daring boy himself a distinguished admiral.

No standard in Europe is more respected than the flag of the German Empire. It has an interesting origin. In A. D. 1152, when Barbarossa was crowned emperor in Frankfort Cathedral, a carpet covered the way to the Romer Palace. When the festivities were ended, the populace carried about the city pieces of the black, red, and gold carpet for flags. These colours were soon recognised as the true German colours, the Revolution of 1848 endorsing them. The laconic motto of Frederic Wilhelm II. expresses the meaning of the German standard:

"From night, through blood, to light."

On the imperial standard of Germany is a black eagle, the Prussian black cross, on black, white, and red ground in the corner, and the motto, "Gott mit uns 1870." In Berlin, I was told that the colours of all the regiments arriving in the city, or stationed there, were kept at the emperor's palace, whence they were taken and returned every day as required.

The standard of the Austrian Empire is divided into three equal horizontal divisions; the centre one white, the others red. The arms of Austria and Hungary appear on the same flag, part of the lower red stripe being changed to green. Since 1495 over

two thousand colours and standards have been captured by Austrian troops, and marvellous are the trophies of war seen in splendid Vienna. The double-headed eagle appears on the imperial yellow standards of both Austria and Russia, each claiming it as the eagle of ancient Rome, which, then as now, symbolized for each nation a double empire. The imperial standard of Saxony was a golden eagle on a red ground; that of crushed Poland, a silver eagle on a red field.

In St. Petersburg, I saw the standard of the Czar of all the Russias, the crown surmounting the imperial eagle, a crown also upon each of the eagle's heads. In each beak, in each claw, the eagle bore a chart representing the White, the Caspian, the Black, and the Baltic Seas. In the red shield on the eagle's breast, St. George is spearing the dragon. A blue diagonal cross on a white ground is borne by the navy, to build which Peter the Great served an apprenticeship in Holland. A little boat, the "Grandfather of the Russian Navy," which young Peter built, is sacredly kept at St. Petersburg. When the emblem of national sovereignty is hoisted or lowered in the Russian navy, the officers and crew stand uncovered on the quarter-deck, and the band plays a national air.

In Moscow I witnessed the strange scene of the Iberian Madonna being borne in a carriage from

house to house throughout the wealthy quarter of the city. The coachman was bareheaded, and the faithful uncovered and crossed themselves, as the guardian goddess moved on. The Icon picture resides in a little chapel near one of the gates of the famous Kremlin, to which the Czar, when he visits Moscow, drives at once and offers a brief prayer. It was also my good fortune to attend the annual services held in the church of "Our Lady Kazan," into which were brought in grand procession all the gorgeous and sacred banners preserved within the ancient Kremlin. Swaying masses of uncovered heads and devout faces crowded the church and blocked every adjoining street. The return of these consecrated banners, the ringing of scores of bells, some of pure silver, in the quaint tower of Ivan the Great, and the gilt domes and picturesque towers of Greek church and cathedral, all produced a wonderful effect upon both worshipper and visitor. One object of my visit to Dresden was to see the far-famed Madonna di San Sisto, which was first carried as a banner in a procession, Raphael having painted it for the Benedictine Cloister of St. Sextus, in Riaccenza. It is said that this youthful painter put into each of his hundred madonnas the beautiful face of the Fornarina, whom he loved.

It is probable that the Egyptians, who possessed the earliest military organizations, invented the carry-

ing of standards as they bore symbols on poles. Agamemnon used a purple veil to rally his men. Other Greeks bore aloft a piece of armour upon a spear. The Romans, Turks, and other nations adopted the death's head and crescent. The standards of the Chaldeans had a representation of the sun, which they worshipped. Doubtless the Hebrews obtained their idea of standards from the Egyptians. The Bible makes frequent mention of standards, banners, and ensigns. On the standards of the Twelve Tribes of Israel appeared a lion, an eagle, an ox, etc.

In the British Museum, upon the sculptures of Nineveh, brought to light by Layard, is seen the device of an arrow, which typifies the swift Tigris that washes the city's walls. The sacred standard of the Persian originally was a leather apron of Koah, a blacksmith, under which, B.C. 800, the Persians were delivered from the tyranny of Sohek. This strange banner was embroidered with gold, decorated with gems of priceless value, and gradually enlarged till it was twenty-two feet long and fifteen broad. After 1,434 years' service it was destroyed by the Moslems at Kedesir. By command of Saad, the soldier who captured it received thirty thousand pieces of gold.

The earliest Roman standard was the eagle of Jupiter and an image of the she-wolf, the reputed

foster-mother of Romulus and Remus, twin brothers; the formgr, founder of Rome. The Romans had nearly a dozen different standards, the peacock of Juno, the imperial elephant, the dragon of Trojan, etc. Augustus's standard was a globe, showing that he had conquered the planet. The legions were frequently animated by throwing the standard far into the ranks of the enemy. To lose it was disgraceful and often considered a capital crime. The double-headed eagle of the Byzantine emperors indicated their claim to both the Eastern and Western empires. The story is told that Constantine the Great had a vision of a shining cross in the heavens, two miles long, and that he inscribed on his imperial standard the motto, "*In hoc signo vinces*" — "In this sign thou shalt conquer." At sight of this consecrated banner, his soldiery were roused with an invincible enthusiasm.

In November, 1879, I took passage at Odessa in a French steamer, crossed the Black Sea, and, entering the clear waters of the Bosphorus, saw from the grim forts which line its banks, and from the Turkish iron-clads, the much-dreaded star and crescent. The crescent banner, which has been borne by Mohammedanism against the cross of Christendom on so many battle-fields, had its origin in a very simple circumstance. The inhabitants of Byzantium adopted the crescent because their city was saved from Philip

of Macedon, the approach of whose army was betrayed by the light of the moon. Afterward, when the Turks captured the city, they found the emblem everywhere, and, believing it a good omen, retained the crescent. Mahomet's earliest standard was white. Subsequently he adopted the sable chamber curtains of his wife Ayesha. Upon it is the device, "Nasrum min Allah" — "The help of God." Some say the sacred standard is green, and devout followers believe it was brought from heaven by the angel Gabriel. In the event of a rebellion or war, this banner is displayed to the people, the holy war proclaimed, and all Moslems over seventeen years of age who refuse to take up arms are infidels, and amenable to death. From the roof of St. Peter's are suspended two Turkish standards won at Ohotzen and Kalunberg.

During the recent Russo-Turkish War, the disheartened Sultan, for the first time in Moslem history, ordered paraded through the streets of Constantinople a "crimson banner, emblazoned with the cross and crescent, the symbols of two antagonistic religions, to arouse the Moslem and Christian alike to arms."

Mahomet II. hoisted first the star and crescent after the capture of Constantinople A. D. 1453. Previous to this date, the device was in common use in English heraldry. Its history dates back to the

Greeks and, possibly, to Aryan mythology. A curious Turkish standard is the *tugh*, consisting of one or more horse-tails, according to rank. The custom came from Tartary, originated, it is said, by a chief, who substituted his horse's tail for a lost standard.

It is remarkable that the pirates of Algiers and of the coast of Barbary should have used for their standard a red hexagonal flag, with the portrait of Hali, son-in-law of Mahomet, which the Koran forbids, and declares that those who make any images or pictures of any man must, at the judgment day, find souls for them, or be cursed.

In China, Japan, and Tartary, from the earliest times, golden, silver, and black dragon-shaped symbols were used as military ensigns. The Western barbarians gradually came to favour dragons coloured white, red, and green.

China had a national existence of seven centuries before the children of Israel left Egypt. The mighty empires of Assyria, Babylon, Persia, Greece, and Rome have risen and declined, but the sturdy Mongolian race remains. Her population is so numerous that every third person buried in the earth is a Chinaman. According to his theory, the earth, in the early history of China, was inhabited by huge animals larger than the whales, chief among which was the dragon. It has the head of a camel, the horns

of a deer, eyes of a rabbit, ears of a cow, neck of a snake, belly of a frog, scales of a carp, claws of a hawk, and the palms of a tiger. In its head is a bright pearl. Its breath is sometimes water and sometimes fire, and its voice is like the jingling of copper pans. His wings make him sovereign of the air, and his serpent swiftness monarch of the earth. Its food was human flesh. The Chinese worshipped this terrible creature as a real existence. No wonder the name "dragon" symbolizes the dignity and supremacy of the Chinese emperor. A gold-embroidered dragon, worked upon yellow satin, with a red border, forms the standard of the Chinese emperor. Their national flag is triangular in shape, and made of deep yellow bunting. A blue dragon with a green head is snapping at a red ball. The Chinese have held intercourse with foreign nations only since the treaties of 1858.

The imperial standard of Japan has a golden globe, or sun, in the centre of a crimson field. Its naval flag a red ball on the centre of a white field. Cortez, in his capture of Mexico, carried a red cross worked upon black velvet. On another banner was painted the most holy Mary, her head bearing a crown of gold, and surrounded by a dozen stars. She is in the act of praying for success in behalf of the Spaniards. Prescott says that the imperial standard of the Inca army displayed the glittering device of the

rainbow, intimating the claim of the Incas as children of the skies.

Over the tomb of the Marquis Pescara, in Naples, hangs his torn banner, with the famous injunction of the Spartan mother to her son, before the battle of Mantinea, "*Aut cum hoc, aut in hoc*" — "Either with this, or on it."

The flag of Italy consists of equal green, white, and red vertical stripes, the green next the staff, and the royal arms and crown on the white. Alfred the Great captured from the Danes their magic standard, which has a raven worked upon a banner by three sisters. The Danes believed the bird would clap its wings when the army marched toward success. The Bible mention of the raven employed to find Elijah doubtless accounts for the use of this emblem of God's providence.

The women of the Middle Ages richly embroidered flags for their knights, hence their value and gallant defence.

The standard of Denmark is the red swallow-tailed flag, with a white cross, the colours of Savoy. In a Spanish convent is preserved a Castilian standard of the eleventh century. The Saviour is sculptured upon a massive silver cross. The colour of the illustrious Cid was green.

"There were knights five hundred went armed before,
And Bermudez 'the Cid's' green standard bore."

In a fierce contest between the forces of Aragon and Castile, the Count of Candespina died fighting to the last. His heroic standard-bearer, of the house of Olea, had his horse killed and hands cut off by sabre-strokes. He fell beside his brave master, clasping firmly in his arms his precious standard, repeating the war-cry of Olea.

“ They hewed the hauberk from his breast,
The helmet from his head.
They hewed the hands from off his limbs,
From every vein he bled.
Clasping the standard to his heart,
He raised one dying peal
That rang as if a trumpet blew,
‘ Olea for Castile ! ’ ”

September 7, 1513, Balboa discovered the Pacific Ocean. The tide was out. When the salt waters dashed upon his feet he waved the standard of the sovereigns of Castile and Leon, and of Aragon, and in their name took possession of the seas, islands, and coasts. Then he and his followers cut three crosses on the trees in honour of the Holy Trinity. In the Moorish wars, Ferdinand always carried a massive silver cross, the gift of Pope Sixtus IV. In 1822, when General San Martin resigned his power at Lima, he said, “ I keep as a record the standard which Pizarro bore when he enslaved the empire of the Incas.” This banner, of poor material and badly

used, finally was willed to Peru, and in 1865 was stolen when the palace was sacked. On the 6th of January, 1875, King Alfonso XII. ordered for the national ensign of Spain the red, yellow, red flag of 1785. The red horizontal stripes are each one-fourth of the whole breadth.

The flags of Belgium, Mexico, and Peru are similar to the French and Italian models. In 1831, equal black, yellow, and red bars, vertically arranged (black next to staff), were adopted as the national flag of Belgium. A beautiful display was made of national colours during the Exposition of 1880, held at Brussels, or "Little Paris." The flag of Mexico has green for hoist, white centre, and red fly. The white has an eagle holding a serpent. A swan was the emblem of ancient Mexicans or Aztecs.

The conquered flag of Peru consists of two red and one perpendicular white stripe, bearing the national arms. The red and white alternate may have been suggested by the red and white feathers worn so conspicuously on the heads of ancient Incas.

The victorious flag of Chile has equal parallel stripes of red and white and a single white star in a field of blue. Liberia also has a white star in a blue field on her flag; also red and white horizontal stripes, six of the former and five of the latter. Greece has a white cross in a blue field and blue and white stripes, the colours of Bavaria, whence came her first king.

The flag of the Netherlands has three equal horizontal stripes of red, white, and blue. Many years ago, orange was a favourite colour with the Dutch. It is related that Alfonso Henrique, 1139, bidden by a hermit to go forth in God's name, with thirteen thousand soldiers, and a few English and French knights, defeated a Moorish army, two hundred thousand strong, and commanded by five kings. The brave count on his white horse won a brilliant victory, and Portugal became a kingdom. Five small shields on a white shield, in memory of the Lord's five wounds, and circles on each shield, in commemoration of the five Moorish kings, make the arms of Portugal, which with the armillary sphere in gold or red formed the flag of the daring Portuguese, who carried it down the African coast and around Cape of Good Hope to the East Indies. The present pretty flag is a modification of the glorious flag of Prince Henry the Navigator. The shield and crown are half in blue and half in white vertical stripes. The Norway and Swedish flags seem to be the Danish flag with the colours altered. The national banner of the former is red with a blue cross, and that of the latter is blue with a yellow cross. The two flags united, symbolizing the union, are placed in one corner similar to the union jack of Great Britain. Sweden, which once played a prominent part in European history, was united, under one king, to

Norway in 1817. Ships at sea communicate with each other by signal flags. A flag of truce is white; a red flag signifies mutiny; a yellow flag is the signal of sickness and quarantine. A universal code of signals exists by which all ships communicate with each other, using flags of various shapes and colours, each flag representing a word, letter, or number. In mid-ocean last fall, a lumber brig, miles distant from our steamer, signalled with perfect ease her name and a desire to be reported when we reached New York. Before the famous battle of Trafalgar, Nelson used signals to give his fleet the ever memorable command, "England expects every man will do his duty." Each set of flags, according to a signal-book, represented a word, except "duty," which was spelled out.

The signal for action which Commodore Perry hoisted in his famous engagement with the English on Lake Erie, Sept. 10, 1813, was a blue flag with the inscription, "Don't give up the ship!"

THE END.

